The National Future Farmer

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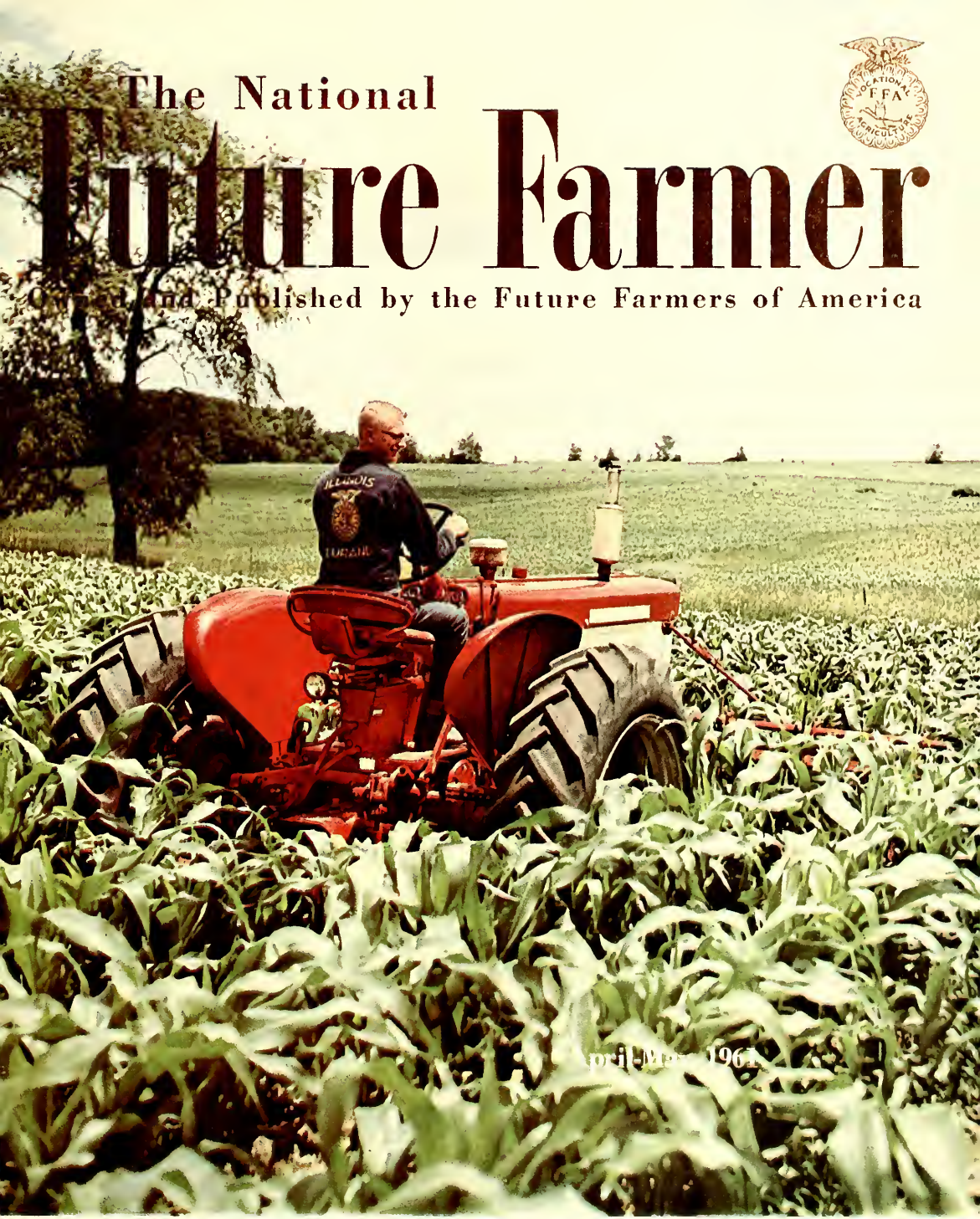

April-May 1961

Written for the young man on the farm

IN THIS ISSUE:

- Arthur Anderson's Formula For Farming
- We Are Conquering The Weather
- Born To Ranch
- Production Testing

JUST OUT! THE Scout

It's a hardtop pickup...open air roadster ...off-road workhorse...all in one!

INTERNATIONAL brings you a whole new idea in low-cost transportation — the Scout! It's an all-purpose vehicle only 67 inches high on a 100-inch wheelbase, a snug little runabout that . . .

- seats three people in comfort,
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The Scout is INTERNATIONAL-built and serviced —nation-wide. See your Scout Dealer now!

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This is the Scout with the steel top on—a neat and nimble pickup that's fun to drive for business or for pleasure.

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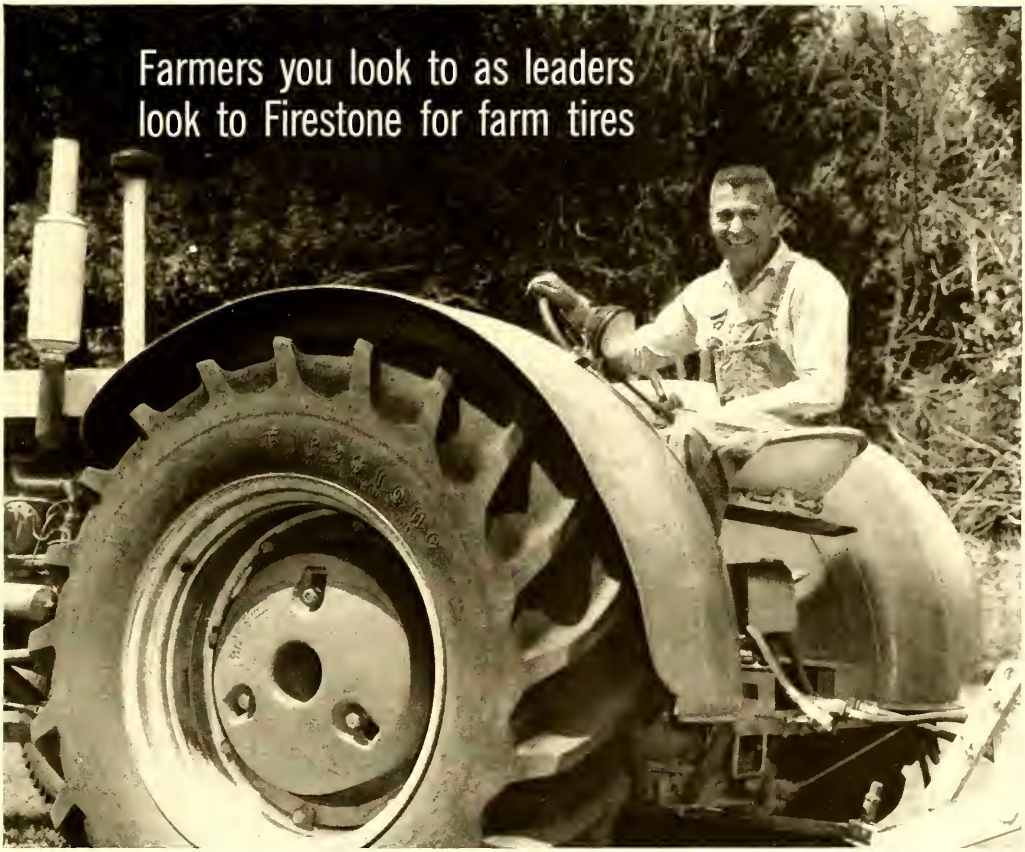

Wheatman Don Schafer of Sterling, Kansas

Kansas began earning her "Wheat State" reputation in 1874—when a variety of wheat called Turkey Red was introduced. This hardy, drought-resistant grain grew so well in Kansas that wheat production soon ran far ahead of record yields of "old king corn."

Since that time Kansas wheatmen have constantly developed new methods in increasing yields per acre. Around Sterling, in Rice County, Don Schafer is respected as a grower who consistently makes modern techniques pay off. Don's neighbors match his pace, too, in using the latest equipment—including the Firestone tires he uses exclusively.

Don reported: "I've used Firestone tires for years. Frankly, I can't beat them for wear and toughness. When you get good tires and service, you're smart to stay with them."

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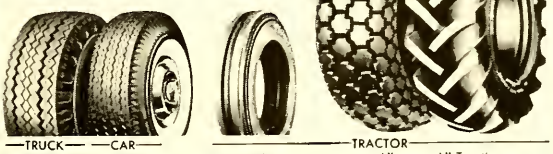

*Firestone T.M.

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OUR COVER—*(Photo by I. M. Huggins, FFA advisor, Rockton, Illinois)* Perhaps thoughts of a high yield caused this Illinois Future Farmer's smile. Corn represents the national scope of the FFA, since it is native to America and is grown in every state.

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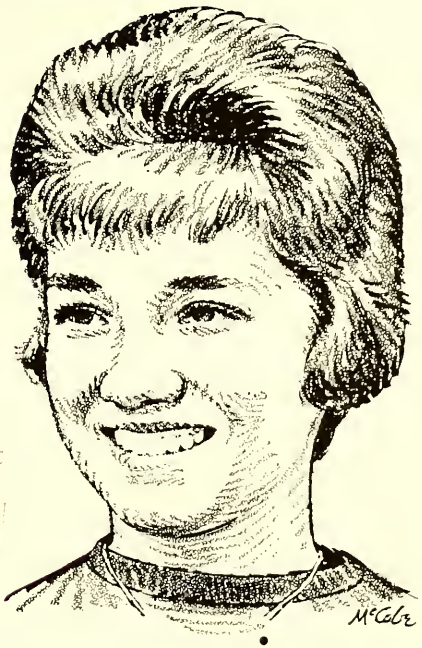
PURINA SALUTES ANOTHER "FARMER OF TOMORROW"

Miss Riggs and the Grand Champion barrow of the youth class at Indiana State Fair.



Indiana girl's barrow wins State Fair Grand Championship

The purebred Poland China raised by Nyrene Riggs, high school freshman of Willow Branch, Indiana, got good feeding and good care. He grew into such a fine barrow that the judges in the youth division of the Indiana State Fair chose him as the Grand Champion.

Nyrene has had a lot of experience in club work. She has raised pigs for four years and has carried out such homemaking projects as baking, home improvement and food preservation. She has won scores of ribbons.

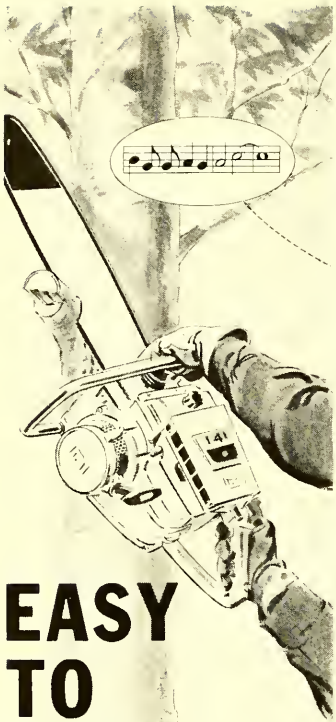
In addition to her club work, Nyrene is a majorette and the librarian for the high school band and she plays saxophone and is treasurer for the dance band.

Nyrene already has plans to go to college. She will train as a teacher and hopes to teach at the Wilkinson School in Willow Branch.

Purina congratulates Nyrene Riggs on her wide interests and on her well-made plans for the future.

Donald and Dick Fitzer, of Fitzer Feed and Grain, Purina Dealership at Willow Branch, have given Nyrene Riggs a lot of help and encouragement. Donald Fitzer has had a lifetime of experience serving farmers and Dick Fitzer is a graduate of Purdue University. Near you, too, there is a Purina Dealer ready to help you on the feeding and management of livestock and poultry whether you're aiming at show ribbons or at the top of the market.

Build Your Champion the PURINA WAY



EASY TO USE

Light-weight, easy-handling McCulloch chain saws cut firewood, pulpwood, and saw logs, clear land, and prune trees on thousands of farms and ranches. They're the top brand—tough, speedy, and low-priced!

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Your Editors Say...

WE HAVE often reported that opportunities exist today for young men in farming. As further support, we cite some figures from a recent study entitled, "The Need for Vocational Education in Agriculture."

This information was prepared by Dr. Duane M. Nielsen, specialist in teacher training and research in agricultural education. Dr. Nielsen is with the Division of Vocational Education, Office of Education, U. S. Department of Health, Education, and Welfare.

Nielsen uses the latest census figures in his report and describes the opportunities for placement in farming as follows:

There are 1,447,000 commercial farms in the United States grossing $5,000 and over annually. The annual replacement opportunities in this group are for 25,467 farm operators.

On all commercial farms, totaling 2,412,000, there are 42,451 replacement opportunities annually.

And on all census farms, of which there are some 3,701,000, the annual replacement opportunities for operators number 65,137.

In the hired worker group, 27,421 vacancies occur each year among the 1,558,000 hired farm workers.

These replacement opportunities are based on the estimated number of deaths and retirement. They will be changed some by young men on farms going into other occupations, and by those in other occupations going into farming. And it may be rightfully argued that the lower income groups do not offer a suitable objective for young men choosing a career. However, some of these smaller units will be around for years, and many Future Farmers will start in the lower income bracket and move upward as they expand their operations.

How many are being trained in vocational agriculture for these opportunities? The answer is *not enough!*

In 1960, there were approximately 945,000 farm boys, age 14 to 17, in the United States, and only 467,000 of these were enrolled in vocational agriculture. From the estimated 70,000 vo-ag graduates each year, studies indicate approximately 25,000 enter farming directly—far short of the 93,000 replacements needed.

The number of replacement opportunities will vary from state to state but these figures give the national picture. No one questions the need for education and training to be successful in today's agriculture, and these figures show that opportunities are there for more and better trained vo-ag graduates. So whether you are a Green Hand or a graduating senior, study carefully the conflicting opinions about career opportunities in agriculture.

From the Note Pad: Bristol County Agricultural High School at Segregansett, Massachusetts, made a five-year study to find out what their vo-ag graduates are doing. They found that 68.1 percent of them are engaged in occupations for which they were trained.

Doyle Conner, former National FFA President and now Commissioner of Agriculture in Florida (See February-March issue), has been selected as one of the "Ten Outstanding Young Men in America" by the Junior Chamber of Commerce.

Captain John R. McKone, one of the two American fliers recently released by the Russians, was a member of the Tonganoxie FFA Chapter during his high school days in Kansas. He was a member of the National FFA Band in 1949. As you recall, Captain McKone's plane was shot down by the Russians and he was held prisoner for about seven months before being released. His welcome home included a visit with President Kennedy.

The FFA is still reaping benefits from the national leadership conference held in Washington, D. C. in 1959. Some of this year's state officers were present and refer to it frequently in the course of their FFA work.

Wilson Carnes, **Editor**

PORTABLE GREASE PUMP BUILT IN TWO HOURS!

A portable transmission grease pump was needed on the 1,100-acre farm operated by Parker Mehrle, his brother Robert, and Julian Boyd, near Caruthersville, Mo. In less than two hours they built the apparatus shown here—using an old oil pump, some strap iron and wheels from a discarded toy wagon.

Texaco Products have been used for many years to service this farm's equipment, which includes 8 tractors, 2 cotton pickers and a combine. Texaco Universal Gear Lubricant EP is preferred because it best protects gears against wear and scuffing. Also Marfak lubricant, which forms a tough collar around open bearings, sealing out dirt and moisture. Marfak won't wash off, dry out, cake up or melt down.

Like farmers everywhere, they've found that *it pays to farm with Texaco Products.*

SHOWN IN PHOTO *(left to right) are Parker Mehrle, foreman William Risner, and Hubert Dunanant, driver-salesman for Texaco Distributor J. T. Ahern, Pemiscot Oil Co. Young Boyd and the dog are interested observers!*

HAVOLINE IS HIS CHOICE!

Leo Gislain, farmer near Wellman, Iowa, uses Advanced Custom-Made Havoline Motor Oil exclusively for his equipment. Havoline's exclusive combination of detergent additives prevents harmful engine deposits and wear. Engines deliver full drawbar power, and more fuel mileage. Mr. Gislain has used Texaco Products for 23 years. Here he is getting a neighborly, on-time delivery from Texaco Distributor K. P. Griggs, Wellman Oil Co.

BUY THE BEST..BUY TEXACO

TUNE IN: TEXACO HUNTLEY-BRINKLEY REPORT, MONDAY THROUGH FRIDAY, NBC-TV. ALSO—METROPOLITAN OPERA RADIO BROADCASTS ON SATURDAYS

Lonisburg, North Carolina

I am submitting my entry for the "Livestock Judging Contest." I am very interested in livestock and am anxiously awaiting the judges' placings.

Larry Edwards

Coats, North Carolina

I would like to tell you how much I enjoy *The National Future Farmer*. It helps people know what farmers are doing in other states. I really like the stories in it.

I am in the Coats FFA Chapter.

C. L. O'Neal

Orangeville, Pennsylvania

This is my second year in the Benton FFA Chapter, and I plan to make it four years.

I am sending for these free booklets with the hope they will help me to be a better Future Farmer.

Paul Miller

Allendale, Illinois

Would you please send me the free booklets I have circled? These booklets are helping me in my vo-ag class, and I'm putting them in my home-farm library. I enjoy the Magazine very much because of the interesting and variety of articles in it.

I wish we could get the Magazine more often.

Dale Stillwell, Jr.

What about it? Would the rest of you Future Farmers like to receive the Magazine more often—even if it means a price increase? Let's hear your arguments for or against.—Ed.

West Salem, Ohio

I am writing about our son not receiving his copy of *The Future Farmer* Magazine. I miss the Magazine, too. He is preparing a talk again this year, and last year used some thoughts from the Magazine in preparing the talk. His topic will be either dairying in the sixties or the educational phase of agriculture. If you have anything on the above topics, he would appreciate them.

Donald Howman

Thanks for letting us know Paul is not receiving the Magazine. We had not received his change of address, but we are sending the issues he missed. You other readers please remember to let us know when you move.—Ed.

Smithfield, Virginia

Please send the following copies of free booklets.

I am a member of the Smithfield FFA Chapter. We are working on public speaking at the present time, and these booklets will give me very useful and helpful information.

I like the Magazine very much and enjoy reading the experiences of the boys of other FFA chapters and the articles of information which helps me a great deal.

Jimmy Harrell

Fairfield, Connecticut

I am deeply interested in dairy farming and have had the opportunity to read one of your magazines. My uncle sent it to me from Germany; he obtained it from an American exposition in Berlin. I want to compliment you on your fine Magazine for it has many interesting articles in it. I would appreciate it very much if you would please enter me on your mailing list. Please bill me for two years' subscription. Thank you.

Herman Von Oy, Jr.

Goes to show that your Magazine really gets around. You recall that in the Dec.-Jan. issue, we told you that Joe Hughes, former National FFA Vice President, took copies of the Magazine to the exposition in West Germany. That's where Herman's uncle got it.—Ed.

Dallas, Georgia

I would like to congratulate you on your article entitled, "What's Ahead for Beef Production?" This article gives cattlemen an outlook on what is ahead for beef production.

I would like to also congratulate you on your free booklets. Each issue has these free booklets in it, and each time one of the books corresponds with the lesson that is being taught at that time in vocational agriculture. Keep up the good work!

Sharon D. Gray

Berwyn, Illinois.

Today was the first time I had ever seen your Magazine, and I couldn't resist scanning through it. Not being a farmer, I found some very interesting articles that really caught my attention.

As a result, I would like to subscribe to *The National Future Farmer*, so I will be able to keep up with agricultural information.

Nancie J. Goles

Roxboro, North Carolina

I am a subscriber of *The National Future Farmer* and a member of the Roxboro FFA Chapter.

I would like to have all four of the booklets that you offer. I think the booklets will be a big help to me and the Chapter.

Bedford Lee,
Secretary

Pratt, Kansas

Please send me the free booklets as indicated.

I just recently joined the Pratt FFA Chapter, and this is my first issue of the Magazine. I think it's great to have a magazine for the farm youth of America.

Phil Shrack

Tappen, North Dakota

We are a newly organized Chapter, and this is the first copy of *The National Future Farmer* Magazine I have received. I enjoyed reading it, and thought I would try the Livestock Judging Contest. We have not begun our livestock judging in school, but will begin within the next couple of weeks.

Robert Strok

Fort Atkinson, Wisconsin

Please send me the booklets as indicated. I appreciate the information that you supply me with through these and other booklets.

I like your Magazine very much. You are the people who are helping to train the farmers of tomorrow.

Bernie Staller

Ocoee, Florida

I enjoyed reading "Safety on Horseback" in the February-March issue very much. I have a horse of my own. Please tell me where to get information on how to train a horse.

My brother is in the FFA and is an officer of the Lakeview High School Chapter.

Sue Main

Pleased to know that you enjoyed the article. We are sending you some sources of information on horse training.—Ed.

Grayson, Kentucky

I enjoy reading the Magazine and especially enjoyed "Washington the Farmer" in February-March issue. I agree he was by far the greatest farmer.

James Feamyson

Elgin, Oklahoma

The National Future Farmer is enjoyed by all at our house.

I'm glad to be a Future Farmer member.

Robert Fesler

To FFA Chapters

Word has been received that some FFA chapters in this country are sending mail and packages to FFP chapters in the Philippines through Dr. James Woodhull, using his A.P.O. address. Dr. Woodhull cannot accept these items since it is contrary to regulations regarding use of A.P.O. privileges for overseas personnel. Chapters are requested to send this mail and packages by regular U.S. mail. For further information, write to Mr. Paul Gray, national FFA executive secretary, U. S. Office of Education, Washington, D. C.

CHOOSE YOUR JOB TRAINING COURSE – BEFORE YOU ENLIST

Interesting work—if you can get it. To land a job as an X-Ray Technician, you need training. The kind of training you get through the Army Graduate Specialist Program.

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You can select from 107 different courses. X-Ray Procedures is one possibility. There's also Ordnance Electronics, Infantry Radio Maintenance, Data Processing, Motor & Generator Repair, Field Artillery Radar Operations—to name a few. Your Army recruiter can give you a detailed description of any specific Graduate Specialist course.

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If you meet the qualifications, you receive an official letter guaranteeing your assignment to the Graduate Specialist course you've chosen. You receive the letter before you enlist. Without obligation.

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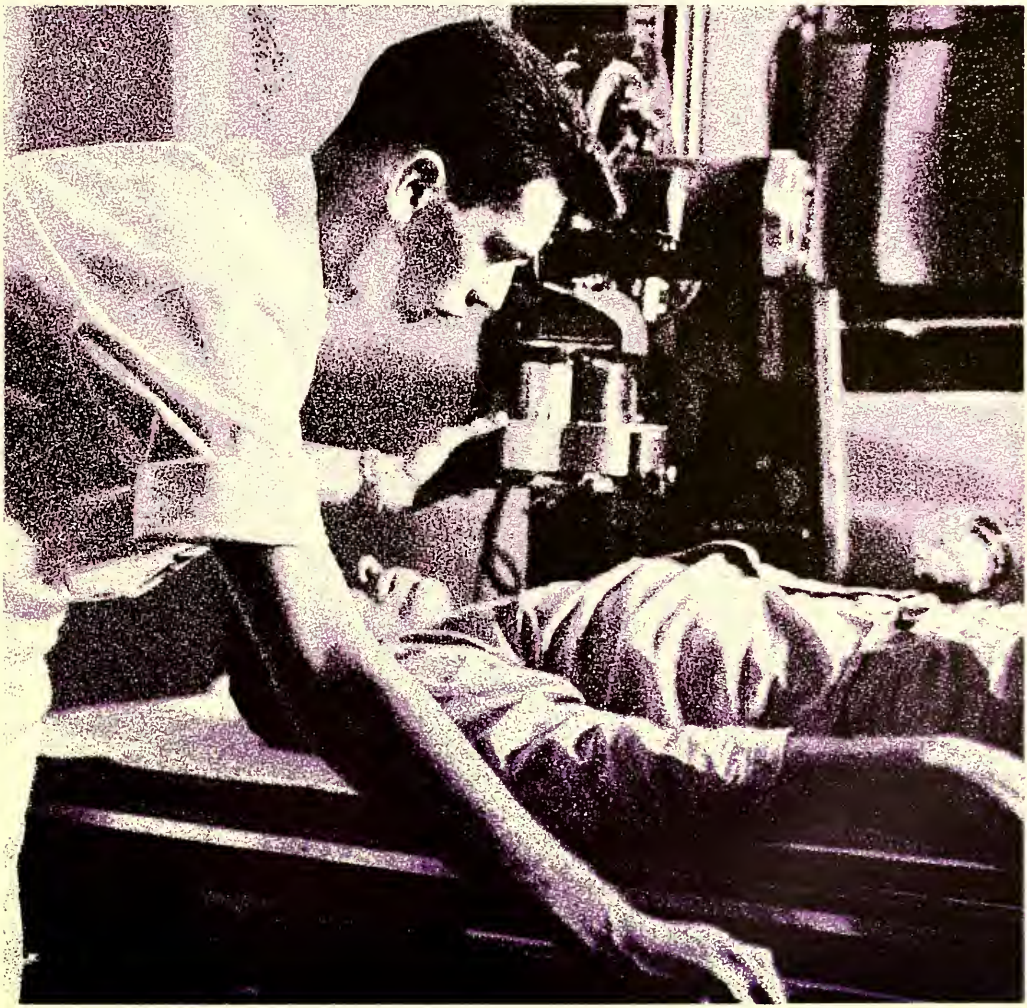

the brand
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Cowboys
wear . . .

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Guaranteed: These authentic cowboy jeans must satisfy, or you get a new garment free, or your money back.

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Kansas City, Missouri

"Here by the Owl"

Mr. Advisor:

"Why should I belong to the FFA after high school graduation?"

Merril T. Cartwright
Advisor, Booneville, Mississippi
National FFA Vice President, '49-50

TO ANY GOOD MEMBER, the biggest advantage in remaining active is the fact that one must remain in the FFA for one year after high school in order to receive the highest degree in the FFA—the American Farmer Degree. And, of course, a member must have received the American Farmer Degree to be a national officer. As a former national officer, I can say that it is the greatest experience of any FFA'ers life.

We cannot overlook the fact that to continue to participate in a school organization is both wholesome and rewarding. To help the younger members—the Green Hand—is a rewarding feeling for any young man.

We at the Booneville FFA Chapter are fortunate to have near us a former national FFA president, Harold Prichard, who is an inspiration to Future Farmers in the area. He had this to say: "Any member who strives for the highest achievements in FFA would find it advantageous to continue his membership after high school graduation. Increased leadership and citizenship opportunities would also come in the period after high school. Here, too, is when the more experienced member can be of greatest help and inspiration to the new and younger boys coming into the FFA. What greater incentive is there to these young members than to see the FFA graduate keep his interest and active association in the local chapter?"

While in high school, the FFA members learn leadership, how to work with others, to accept responsibility, to express themselves, and develop an interest for better farming and an increased knowledge and skill in farming. These are put into the FFA member's grasp while in high school. After graduation, he is no longer a boy but a young man who can grasp them firmly and make the most use of them—realizing the great good that is obtained from the Future Farmers of America.

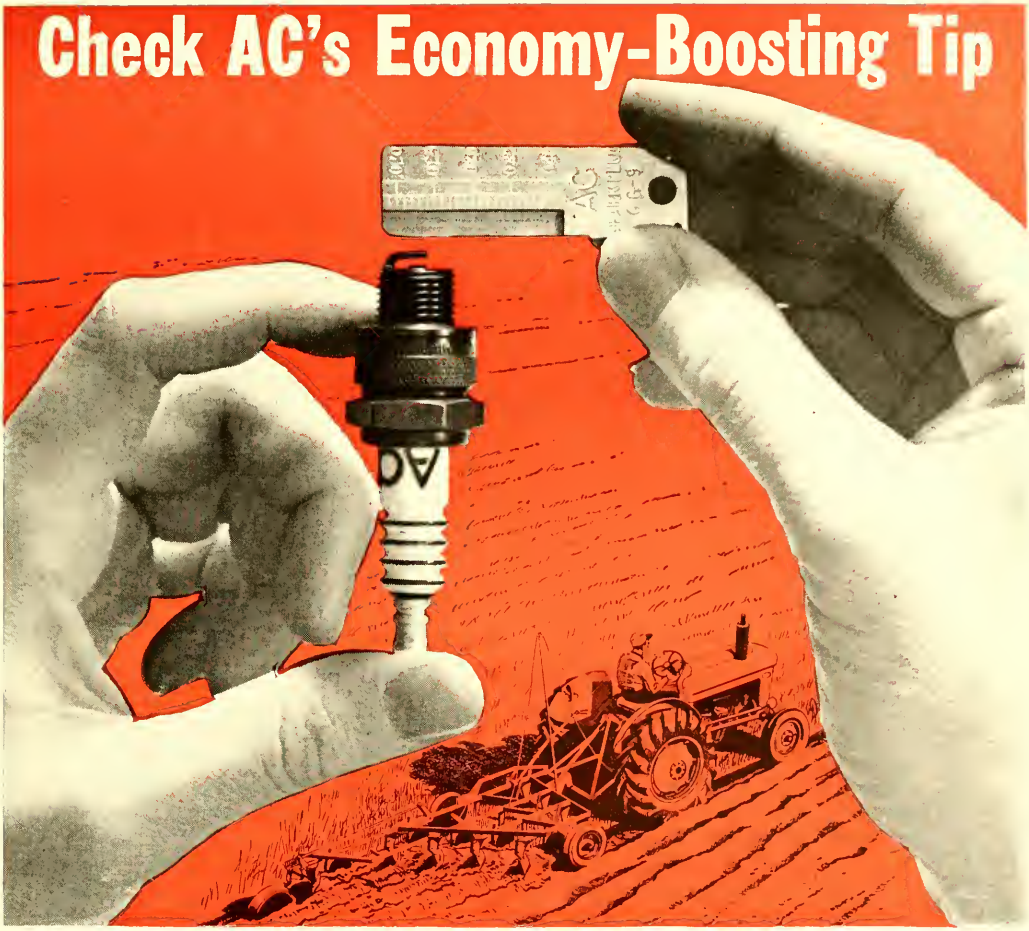
Wenroy C. Smith
Advisor, Saltsburg, Pennsylvania
Chairman, NVATA-FFA Relations Committee

THE NEED to face this question confronts many FFA members during the time of graduation from high school and shortly thereafter.

To my knowledge there has been little written on this phase of FFA membership, an indication that more guidance is need in this direction. It may be the result of a trend of thought which considers graduation as the climax in the life of a young man, even though he continues with a well-planned and established farming program as well as participation in a Young Farmer group. Some of these ideas may not apply for those who go into careers which take them away from the home community.

Possibly more attention should be given to planning a continuation of FFA activities before the close of the high school career. There are good reasons for this type of thinking. There are many advantages in belonging to the FFA after high school, therefore planning should not be left until after graduation. *(Continued on Page 60)*

Check AC's Economy-Boosting Tip



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You get something more, too. It's AC's new Spark Plug Gapping Tool and Gauge—a precision tool that permits you to set spark plug gap to engine specifications when installing new spark plugs or when servicing your engine. Use it to insure full power return from every engine for greater operating economy.

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AC Gapping Tool and Gauge yours with end flaps from four AC Fire-Ring Spark Plug boxes

SPARK PLUG

The Electronics Division of General Motors
P.O. Box 709E, Flint, Michigan

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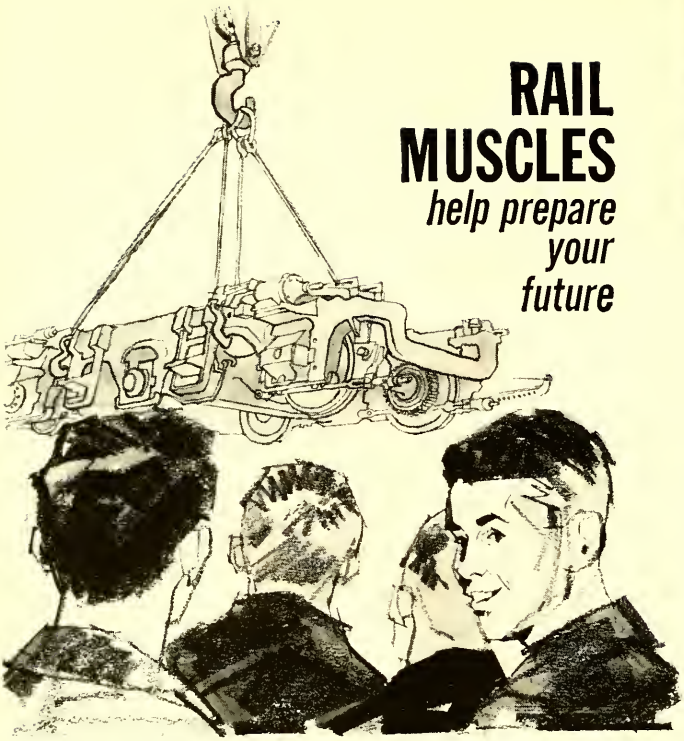
Name_____
(Please Print)

Address_____

City or Town_____

State_____

Act now! This offer is good for a limited time only!



RAIL MUSCLES *help prepare your future*

Young farmers, visiting in locomotive shops, study the muscular power units that move Union Pacific trains across the West . . . hauling supplies and equipment to farms, taking produce of the soil and range to market.

But there's much more invested, through efforts of the Railroad, for the Agricultural future.

The Railroad produces motion pictures in full color and publishes pocket-size booklets on prime topics in Agriculture. Kept up-to-the-minute, these booklets and films are made available to interested students and other farm people, without charge. Your nearest Union Pacific representative will arrange it for you.

A unique theater-on-rails presents forums, exhibits, and programs on board, as it tours the Union Pacific West — especially for agricultural development.

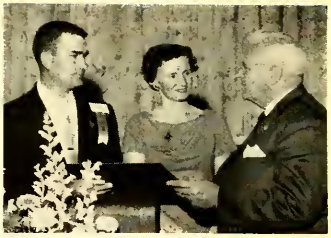
Liberal scholarships are presented every year, in every county served by Union Pacific, to encourage advanced study in Agriculture.

All this is done in cooperation with the leaders in education, extension, and the agricultural industry, by the Railroad's Livestock and Agriculture staff.

This railroad serves some of the finest farming and ranching country in our nation.

UNION PACIFIC is part of your farming future

UNION PACIFIC RAILROAD



Robert and Sibyl are shown with Hershel Newsom, National Grange Master.

Honored by Grange

ROBERT BARNES, an Oregon FFA vice-president in 1947, and his wife, Sibyl, have been named "Outstanding Young Couple of the Year" in the National Grange's annual contest.

They won an all-expense-paid trip to the National Grange Convention in North Carolina, where they received the recognition of Grange delegates and were honored on several occasions.

Robert received the American Farmer Degree at the 1949 National FFA Convention and was an outstanding FFA member in the Silverton, Oregon High School. In 1959, he was named Outstanding Young Farmer and Soil Conservationist of the Year in the Silver Creek district.

In Memoriam

It is with regret that we announce the passing of Mr. Richard E. Bass, National FFA Treasurer. Mr. Bass, 55, contributed 31 years of service to vocational agriculture and the FFA.

He was a native of Lunenburg County, Virginia, and taught vocational agriculture in the state from 1929-39. He later became state supervisor and was appointed state director of vocational education in 1958.

Mr. Bass was a past president of the American Vocational Association and received their Outstanding Service Award in 1959 and the Honorary American Farmer Degree in the FFA the same year.

GOODYEAR "EXTRA HAND" SERVICE AT WORK:

"Getting back on the job in an hour saved me $250"

reports Robert McNinch, Mac-Beth Farm, Belmont, N. Y.

WITHIN MINUTES OF A TROUBLE-CALL from Bob McNinch, M. & W. Tire Co. "rep" Alvin Jordan reached Mac-Beth Farm. He quickly installed a free "loaner" to replace a tractor tire that had been damaged beyond repair. Just one hour after the accident, the tractor was back planting oats again. According to McNinch, this speedy service saved $250 — the wages of his extra field hands who would have been idled the rest of the day without the tractor.

THE NEXT MORNING AT 7 A.M., Jordan returned to replace the "loaner" with the new Goodyear tire McNinch needed. It was expertly installed—inflated—liquid-weighted, in time for a full day in the field. That's all part of the "Extra Hand" service that has helped keep McNinch a Goodyear tractor tire user for the past 18 years. Another big reason he's a Goodyear fan: Goodyear famed Sure-Grip quality gives him 1,000 hours of peak performance a year—year after year.

FAST-ACTING "EXTRA HAND" SERVICE whenever tire troubles develop is money in the bank to busy farmers. And that's backed up by the exceptional traction and life-span of Sure-Grip tractor tires.

So it's no mystery why Goodyear dealers are such valued friends of so many farmers today—or why they figure to be equally valued by Future Farmers come tomorrow. Goodyear, Farm Tire Department, Akron 16, Ohio.

GOODYEAR "EXTRA HAND" FARM TIRE SERVICE

1. Check, change and repair any type tire.
2. Furnish "loaners" while your tires are being repaired or retreaded.
3. Take care of your battery needs.
4. Liquid-weight your tractor tires for maximum traction.
5. Minimize down time through expert help on tire maintenance.

Sure-Grip—T.M. The Goodyear Tire & Rubber Company, Akron, Ohio

Lots of good things come from

GOODYEAR

MORE FARMERS PREFER GOODYEAR TRACTOR TIRES THAN ANY OTHER KIND

Choose either the popular 3-T Sure-Grip or extra-quality Traction Sure-Grip tires, both out-in-front performers

COSTLY
EQUIPMENT
DESERVES
QUALITY
LUBRICATION

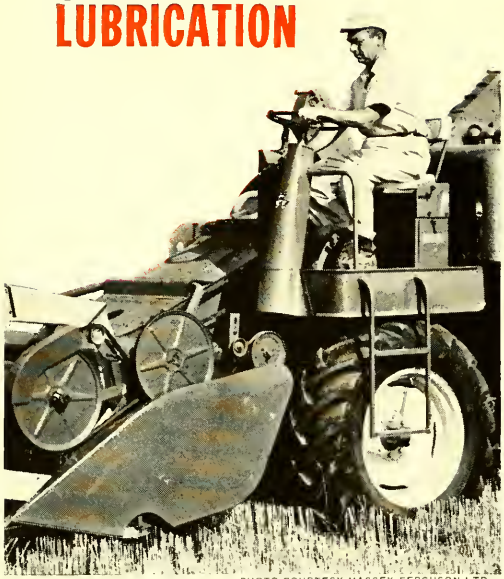


PHOTO COURTESY MASSEY-FERGUSON LTD.

There is no surer way to extend the life of costly farm equipment than to protect it with quality lubricants.

Kendall Lubricants deserve that description. All are refined from the choicest 100% Pennsylvania Crude Oil. Naturally better right from the start, Kendall makes them still better through special refining processes. Used in cars, trucks, tractors or implements, they assure better and longer service at less cost.

Ask Your Favorite Dealer for

KENDALL
FARM
LUBRICANTS

KENDALL MOTOR OILS

KENDALL REFINING COMPANY • BRADFORD, PENNA.

These men influence the course of the FFA Foundation.

FFA Donors Meet

THE MEETING of donor representatives to the Future Farmers of America Foundation, Inc., was held in Washington, D. C. on January 25. This group meets annually with the Foundation Board of Trustees and the National FFA Officers to transact Foundation business.

The three men pictured above will have a big influence on the course of the Foundation in the year ahead. Mr. J. C. Denton, left, president of Spencer Chemical Company, is the new chairman of the Sponsoring Committee. At right is Mr. Russell DeYoung, president of Goodyear Tire and Rubber Company, who is past chairman. National FFA Advisor, Dr. W. T. Spanton, center, serves as president of the Foundation's Board of Trustees. They met prior to the annual meeting to plan the 1961 campaign for obtaining Foundation contributions.

At the January meeting, Donors approved a 1961 budget of $195,530.62. Of this amount, $161,250 will go to the Future Farmers of America and $22,280.62 to the New Farmers of America for prizes and awards.

A review of 1960 showed that contributions from donors to the Foundation amounted to $163,557. Miscellaneous income and interest on reserve funds brought the total income in 1960 to $173,182.

Biggest change in the Foundation program for this year is the addition of four new awards. They are Crop Farming, Farm Forestry, Livestock Farming, and Poultry.

These four awards, added to the existing awards of Dairy Farming, Farm Electrification, Farm Mechanics, Farm Safety, and Soil and Water Management will make a total of nine awards, from which any State Association may select five.

The Foundation is supported through contributions from business and industrial concerns, organizations, and individuals. It is administered by a 15-member Board of Trustees, all of whom are engaged full time in administration of the vocational agriculture program.

Best known of the Foundation awards is the Star Farmer of America award given annually at the National FFA Convention to the Future Farmer who, in the judges' opinion, has accomplished the most in farming, leadership, cooperation, and citizenship. The winner receives a Foundation check for $1,000. Three others are named Regional Star Farmers and receive $500 each.

All Foundation awards are designed to stimulate the interest of FFA members in their study and work. National awards are presented at the annual National FFA Convention. State awards are usually presented during State FFA Conventions. Local chapter awards (medals) usually are presented at the time of the chapter's annual "parent-son" banquet or in a special school assembly program.

More than 50,000 FFA Foundation medals are awarded locally each year.

THEY WORK HARDER BECAUSE THEY RIDE EASIER!

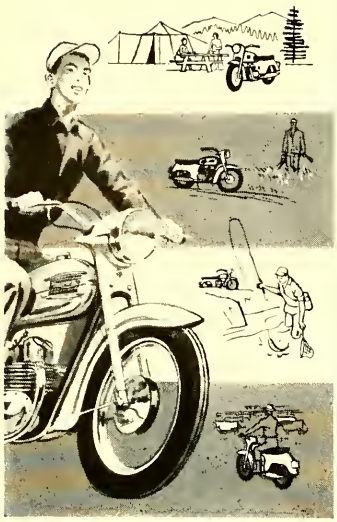
Shown here are the Corvair 95 Rampside and a Chevrolet Fleetside—both right at home on a farm.

WORK-PROVED CHEVROLETS Whatever the job—hauling perishables, livestock, makes no difference what—Chevy IFS (Independent Front Suspension) means easier going for the driver and the load. Here's a truck ride that protects fragile cargo and lets you get more work done in a day. And a Chevy IFS truck costs less to maintain because there's less tire abuse and wear and tear on the sheet metal. Put a Chevy IFS truck to work for you (pickup, stake, whatever you need) and you'll see what we mean!

REAR-ENGINED CORVAIR 95's They carry up to 1,900 lbs. on a nimble 95″ wheelbase and handle like no truck you've ever driven before! Single unit body-frame is built to take it. 4-wheel independent suspension soaks up road shock and vibration. Air-cooled rear engine never uses water or antifreeze. Everything about them spells economy and long life! . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

CHEVY IFS TRUCKS

FRONT INDEPENDENT SUSPENSION



Zoom ahead at work

or play on a trusty

TRIUMPH

Camping! Fishing! Hunting! Herding cattle!

Or out for a carefree spin! In town or country, on a smooth highway or rough terrain, you're ahead when you own a trusty Triumph!

From reliable, easy-handling Lightweights to powerful OHV Twins, a Triumph is your No. 1 buy.

Skilled craftsmanship and a half-century of motorcycle design know-how make the famous Triumph engine a real jewel . . . smooth operating, powerful, dependable!

Choose from a wide range of Triumph models, buy on easy terms.

GET FREE FULL-COLOR, FULL-LINE 1961 CATALOG

Mail this coupon to nearest address

In the West: Johnson Motors, Inc. 267 W. Colorado St. Pasadena 1, Calif.

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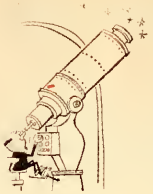

LOOKING AHEAD!

NEW CORN HYBRID HAS BUILT IN "BIRD RESISTANCE"

Several acres of this experimental hybrid was raised in 1960 at Firestone Homestead Farms near Akron, Ohio. Less than a fifth the ears were damaged by birds, and yield was 98.59 bushels per acre. Two established varieties were planted in the same area and grown under the same conditions. Half of one variety was seriously damaged and yield was 95 bushels an acre. Nearly half the other was also damaged, but yield was 115.85 bushels an acre. Testing will continue until a variety is achieved that shows good bird resistance along with high yielding ability.

WHAT TO BUY? GASOLINE OR DIESEL?

Anyone who's trying to decide which type tractor to buy is smart to give the subject some careful study. Guy Gienger, University of Maryland Agricultural Engineering Dept., offers this advice:

Weigh the difference in price between diesel fuel and gasoline, total hours of annual use, total years of ownership, and the difference in original purchase price to decide which is best for you. The greater the difference in purchase price, the more hours a diesel will have to be used in a year to make a net saving in operation.

FATTENING HOGS NEED LOTS OF FLOOR SPACE

When plenty of floor space was available, fattening hogs made better gains and consumed less feed per 100 pounds gain in a trial by two scientists at the Cargill Nutrena Research Farm in Minnesota.

Group I hogs—with 9 square feet floor space—averaged 1.61 pounds daily gain. Group II—with 14.7 square feet—gained 2.01 pounds daily; and Group III—with 19.6 square feet—gained 2.1 pounds daily. Group I took 428 pounds feed to gain 100 pounds; Group II took 357 pounds feed; and Group III only 339 pounds.

DRIED HONEY OFFERS MANY POSSIBILITIES

This new product developed by USDA may open a big market for beekeepers by encouraging commercial bakers and candy makers to use honey as a sweetener. The free-flowing form provides new convenience and economy in handling. When reconstituted with water, it has about the same flavor as liquid honey.

TERRAMYCIN-STILBESTROL COMBINATION MADE STEERS WORTH MORE

At the University of Kentucky, steers averaged 1.8 pounds daily gain when receiving both stilbestrol and Terramycin (in salt). Steers getting only stilbestrol (as a 24-milligram ear implant) gained 1.62 pounds daily. Those getting only Terramycin averaged 1.45 pounds daily; and the group receiving neither (controls), gained only 1.34 pounds daily.

Even more important, the stilbestrol-Terramycin fed steers weighed 68 pounds more than the controls, were worth $13.52 a steer more, and returned $10.39 for each $1 invested in the stilbestrol and Terramycin.

EXPERIMENTAL CHEMICAL CONTROLS GRUBS AND HORN FLIES

By simply pouring Ruelene down the back line, it controlled from 96-99 percent of the grubs on a group of calves at South Dakota State College. Used as a spray, Ruelene controlled only 80 percent. Untreated calves showed over 25 grubs on each. This chemical has not yet been approved by the Food and Drug Administration.

3 ways to cut hog feeding costs... all from PASTURE

In spite of the excitement over confinement feeding, one fact stands out clearly: Many farmers can still market hogs from pasture at less cost than from drylot.

Here are three reasons why:

1. Pasture replaces a good share of the protein supplement needed by drylot hogs.
2. Clean ground checks carryover disease and parasites, often hazards on drylot.
3. Feeding on pasture steps up rate of gain.

Drylot feeding was compared with feeding hogs on 4 different pastures in Ohio experiments. Pigs from each pasture produced 100 pounds of pork at less cost than those on drylot.

Each set of pasture hogs went to market ahead of the drylot group. The pace-setting lot was on the auction block 14 days ahead of the drylot hogs.

When many producers plan pasture for hogs, they figure any forage will do. Instead, hogs need good pasture, one that is high in protein and minerals. Just as with any other livestock, maximum profits from pasture feeding result from pasture tailored to the animals that use it.

Let us send you our new, free book, Pasture—How to Reduce Feed Costs. This pamphlet presents many cost-cutting facts, not only about hogs but other livestock too. It tells how to improve pastures. How to manage them for the most forage. What recommended forage varieties there are for every section of the country. How to stretch the pasture season.

These and many other subjects make the book valuable to you. Use it for reference, class discussion or talks. The book is authoritative, based on research results from across the nation. Why not send for your copy today?

Keystone Steel & Wire Company, Dept. NFF-45
Peoria 7, Illinois

Please send my free copy of the new book, Pasture—How to Reduce Feed Costs.

Name _____

Position _____

Address _____

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RED BRAND® and PASTURE

a powerful cost-cutting combination

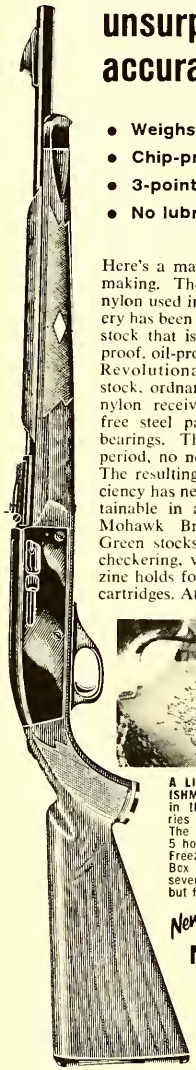
Good pasture lowers the cost of livestock production. And Red Brand Fence reduces costs by lasting years longer than ordinary fence. Only Red Brand is Galvannealed,® an exclusive Keystone process that fuses zinc deep into the wire. It licks rust for years of extra life.

Red Brand goes up fast and easy, too. Stays tight without restretching. You can always tell it by the red top wire. You also know extra value when you see the bright red tops of Red Top® Steel Posts and the red barbs of Galvannealed Red Brand Barbed Wire. Use all three for the best fence combination.

KEYSTONE STEEL & WIRE COMPANY
Peoria 7, Illinois

Red Brand Fence • Red Brand Barbed Wire • Red Top Steel Posts • Keyline® Poultry Netting • Baler Wire • Gates • Nails

Amazing structural-nylon and ordnance steel design gives new 22 autoloader unsurpassed accuracy



- Weighs just 4 pounds
- Chip-proof, warp-proof
- 3-point bedding
- No lubrication

Here's a major advance in rifle making. The same structural-nylon used in industrial machinery has been used to create a gun stock that is chip-proof, water-proof, oil-proof and warp-proof. Revolutionary integration of stock, ordnance steel barrel and nylon receiver means friction-free steel parts ride on nylon bearings. There's no break-in period, no need for lubrication. The resulting accuracy and efficiency has never before been obtainable in an autoloading 22. Mohawk Brown and Seneca Green stocks have clean, sharp checkering, white inlays. Magazine holds fourteen 22 long rifle cartridges. At your dealer's now.

A LIFETIME OF RIFLE PUNISHMENT was concentrated in the Remington laboratories to test the Nylon 66. The gun was rapid-fired for 5 hours without a jam. The Freeze Box, Heat Box, Rain Box and Dust Box produced severe weather conditions, but failed to clog the action.

New

NYLON 66

$53.95*

**Price subject to change without notice.*

Remington

DUPONT

Remington Arms Company, Inc., Bridgeport 2, Conn. In Canada: Remington Arms of Canada Limited, 36 Queen Elizabeth Blvd., Toronto, Ont.

President's Report on the National Organization

By Lyle Carpenter

MUCH of the business of your National Organization of FFA is conducted at joint meetings of the National FFA Officers and the FFA Board of Directors. These Boards meet in January and July of each year, and in October just prior to the National FFA Convention. (The individuals who make up these Boards are listed on the contents page of this Magazine.)

The January meeting was held this year on January 26 and 27 in the U. S. Office of Education, Washington, D. C. Chairman of the Board and national FFA advisor, Dr. W. T. Spanton, and your National President jointly presided. Through their regional representatives on the Boards, each state may present such matters as they deem important to this group.

Here are some highlights from the January meeting:

There was some discussion on changing the National FFA Convention dates. Since plans are already set for 1961, it was decided that any change in Convention dates could not be made before 1962. In the meantime, the states will be polled to obtain their views on a time for opening and closing the 1962 Convention program.

Another important item for the Boards is that of finance. Mrs. Pauline Coiner, secretary to the National Treasurer, presented a statement of revenue and expenditure of the FFA for a six-months period and this was gone over in detail.

The group then reviewed the report of *The National Future Farmer* Magazine given by Editor Wilson Carnes. Some time was spent in discussing the advisability of going to more issues with an increase in subscription price to help pay the additional cost of putting out the issues. This information is to be sent to the states with the recommendation that the State Associations inform their chapters so that this item can be discussed at their state conventions.

A report on the Official FFA Calendar program was given by Mr. Howard Carter, associate editor of the Magazine. Mr. Carter reported that the Calendar program was growing each year but indicated he believed it is far short of the potential. We then got a preview of the 1962 Calendars which are now being offered by chapters to local businessmen in their community.

The manager of the Future Farmers Supply Service, Mr. Edward Hawkins, gave a mid-year report on operations to date. Biggest problem facing this group is that of storage. The Supply Service has outgrown its present storage space and additional warehouse facilities are needed for FFA supplies.

Of interest to chapters was a recommendation by Mr. Hawkins, which was approved. Now the plaque for outstanding service, formerly restricted to use by State Associations, is available to chapters.

There was general agreement that the exhibits at the National FFA Convention could serve as examples of types of exhibits to be developed by local chapters. It was decided that the FFA Week theme would be a good topic to feature in the National Convention exhibits. Plans were made to select the 1962 FFA Week theme soon so that state exhibits at the 1961 National Convention could be limited to those which feature the 1962 FFA Week theme. The Boards voted $1,000 to help the states with expenses of shipping exhibits to and from the Convention with the payments to be allotted by zones.

Some Board members felt that there is a need for a Distinguished Service Award Plaque to be awarded to a person not officially connected with the FFA but who has rendered outstanding service to the National Organization. The Boards agreed to award one such plaque each year beginning in 1961.

A discussion was held on removing the present restriction on the number of members permitted to attend the National Convention. A number of states have protested this restriction and asked for special permission to bring larger groups. The Boards took action which will permit each chapter to carry at least six FFA members from each chapter, but not more than 10 percent of a local chapter's membership.

Those are some of the highlights of the Board meeting. Detailed minutes are kept on each session and a copy is mailed to each state. Though some of the items do not affect you directly, perhaps by reading about them you will gain a better knowledge of how your National Organization operates.

◆◆◆

When
the
hay's
right
sun and weather wait for no man

MASSEY-FERGUSON

This team's in the field

first

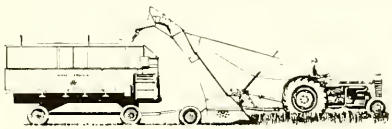
and stays on the go!

The famous Massey-Ferguson Dyna-Balance Mower is fully mounted in one minute... no daily greasing with the big MF 10 Baler!

You can't "order" good haying weather. But with this team you can make every second count when it comes. You're out making hay before the others even get started! Take the unique MF 31 Dyna-Balance Mower. You, by yourself, can fully mount it to your tractor in 60 seconds or less, adjust it to the tractor's tread width if necessary . . . and you're off and away! The quiet, vibration-free, no-pitman Dyna-Balance Drive permits higher knife speeds. So you mow faster—and better, too. With a simple adjustment of the exclusive Variable-Speed Belt Pulley, you can pick a knife speed that's just right for any crop or condition. Lets you cut the toughest crop at the fastest possible ground speed!

And take the MF 10 Baler with sealed bearings that eliminate daily greasing. You're in the field and tons ahead while others are still working a messy grease gun! The wide 56-inch pickup gulps the really heavy windrows. Hay is handled gently to save nutritious leaves. And you get perfectly tied bales just the way you want them . . . any length from 15 to 50 inches, any weight from 40 to 65 pounds. See your Massey-Ferguson dealer; get full details about this first-in-the-field team!

A Massey-Ferguson "First"—and engineered to stay the best—this offset reel rake moves hay only half the usual distance from swath to windrow to save more of the protein-rich leaves. Take your pick: the fully mounted 7-ft. MF 20 and 8-ft. MF 25 (above), or the Pull-Type 8-ft. MF 36 . . . all with the exclusive 6 bar reel, or with the even more economical 4 and 5 bar reels.



Versatile Forage Harvester—the MF 60—cuts grass, shreds stalks, chops green silage and mulches stubble. Easily converts to a rowcrop chopper or feed grinder. Simple, efficient flail-type design is most economical—requires no pick-up assembly, augers, or power-consuming fan! Flailing knife shreds the stalks, releases the juices to make more nutritious silage that packs and keeps better.

MASSEY-FERGUSON

Look, compare . . . MASSEY-FERGUSON, world's largest manufacturer of tractors and self-propelled combines

They've found you can run a telephone to a man a lot cheaper than a man can run to a telephone

There's so much a farmer must know, so many people he must look to for services and advice—that the telephone has practically become his life line. Now many farmers are extending the reach of their telephone service with extensions in their outbuildings.

New York Dairyman Saves Two to Three Miles of Walking a Day Until about five years ago, Charles Buckenmeyer handled his 20 to 30 daily calls on the house telephone. He spent a good part of his morning hurrying to and from the house phone—a 200-yard round trip. Now Charlie's extension saves two to three miles of walking daily.

California Farmer Saves 250 Man-hours Arnold Collier has four year-round men to help him run his Dixon, California, farm. He raises grain, alfalfa and produce. Day to day work centers around the machine shed-shop. Arnold figures the extension phone in this building saves him and his men well over 250 man-hours a year. The cost of the extension comes out about 8¢ for every man-hour it saves.

Extension Phone Helps Washington Sheepman Make an Extra $2500 Tom Drumheller has an extension phone in the cookhouse on his sheep ranch near Ephrata, Washington. A couple of years ago at shearing time, Tom used this telephone to keep track of the wool market. The information he gathered convinced him prices would strengthen. So, he held off on selling. The market went up 5¢ and Tom's 50,000 lbs. of wool brought an extra $2500. This is a fine example of the importance of having an extension phone handy *when* and *where* you need it.

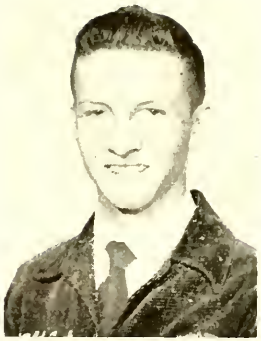
• • • • •

Today the extension telephone is a farm tool that pays its way over and over by helping farmers make the most of their time and opportunities. It can do the same for you. Just call the folks at your telephone business office. They'll be glad to help.

BELL TELEPHONE SYSTEM

RONALD COOK

National FFA Student Secretary



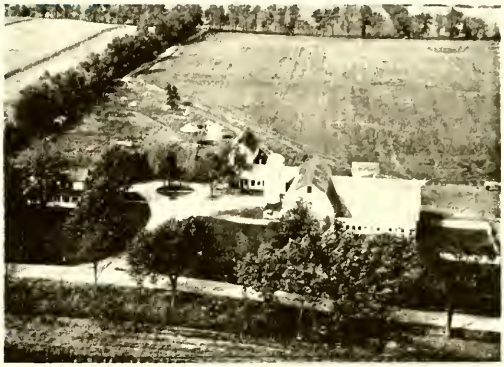
He was never sure he would make it, but his record paid dividends when the ballots were counted.

By Wilson Carnes

AN EFFICIENT AND PROGRESSIVE livestock feeder! That's the way folks around Marshall, Michigan, describe National FFA Student Secretary, Ronald Cook.

Twenty-year-old Ronald farms in partnership with his dad. Last year, 700 hogs and 200 steers and heifers came out of their feedlots. The partners also raised 280 acres grain on their 400-acre farm. In 1961, they plan to feed out about 800 hogs and 250-400 beef cattle.

Ronald started his supervised farming program on a small scale in 1954 with 53 hogs, 3 dairy cows, 3 steers and 5 acres oats. It was a good year—he made a labor income of over $1,000.



A view of the farm Ronald owns in partnership with his dad. Notice the well-planned farmstead arrangement.

The next year, he had to choose between expanding his operation or working in town part time. His decision was to expand his farming operation by renting a 100-acre farm.

He and his dad combined their operation in 1957. Ronald says the partnership is one of the best decisions he ever made. It offers many advantages for both partners.

While busy building his supervised farming program, Ronald also built a sound leadership program. He has served as chapter chaplain, secretary, president, regional vice president, and as Michigan FFA Secretary.

"The partnership let me get into a going business where I could take advantage of my dad's experience," Ronald says. "Too, I can make definite plans for the future, and it has helped to improve my credit standing."

"Dad has also found several advantages. He can continue operating the farm, but now can gradually ease into retirement since I am here to help. It also leaves him more time for his duty as township supervisor and other county and community activities."

I asked Ronald if he would advise a father-son partnership for other Future Farmers. "In some cases," he said. "For a successful partnership, the son must have a real desire to be a partner, and he and his father must get along agreeably. Also, the son should be willing to work a little extra."

Probably many of you would like to know how he became a National FFA officer. I asked how he went about it.

"It wasn't one big thing I did," he replied. "It was a lot of little things. I tried to take advantage of every leaderhsip and farming opportunity that came my way. Also, I set my goals early and tried to stick to them. One of the things that helped me most was the encouragement I received from my parents and Advisor Anderson. I would advise other Future Farmers to take advantage of every leadership opportunity they possibly can, in addition to carrying out a sound supervised farming program."

Ronald and his Advisor, Jack Anderson, checking the moisture content of corn. Mr. Cook is operating the corn picker.

When asked if he ever had trouble speaking before large audiences, he said, "At first I was scared. I used the FFA's public speaking program, meetings, and discussions to help me gain self-confidence and overcome my stage fright."

Did Ronald ever think he would be elected as a National Officer?

"No," he replied, "I was never fully confident. To tell the truth, I nearly missed the convention. I came down with pneumonia the week before the convention and had to be taken to the hospital. I recovered enough to make it to Kansas City, but once I got there, my hopes weren't too high."

"I was really surprised when I learned that I had been elected. It is a big responsibility, but it is a wonderful opportunity to tell others about vocational agriculture and the FFA. That is what I have always dreamed of."

What will he do after his term as a National FFA Officer is over?

"That's easy," he replied. "It's back to that 400-acre farm where I plan to continue farming."

The Wild "80"

Take 80 acres of so-called "no good land." Add the dedication of an ag teacher and the work of his chapter members. Result? A tree farm!

By C. C. Strange

WHY THAT Wild Eighty won't bring $75 a year for any purpose, and since it has been milked dry by selling off the timber, it is good for nothing.

This statement, and several similar ones, was made when the Leslie, Michigan, FFA Chapter bought an 80-acre tract of cut-over timber land near Leslie. That was 1952, and today the Wild Eighty has become the Holiday Hundred, all because of an agriculture teacher's dream and the willing efforts of his vocational agriculture students.

The Leslie FFA Chapter raised $600 in 1952 from various projects. Russell Miller, the advisor, suggested that the money be spent for a project that would grow and could be used by future vo-ag classes. As the classes were spending a lot of time studying forestry and soil conservation practices, it was only natural they chose to buy land to carry out their classroom teaching.

The Wild Eighty had everything they needed—and more too. It was up for sale at $2,500. The Chapter paid $600 down and financed the remaining $1,900 at the local bank.

Shortly after purchasing the 80 acres, a neighboring landowner offered to sell the Chapter an adjoining 20 acres of swampland. They bought it.

Now how would the Chapter pay for it all? Mr. Miller recommended they take a good look at their land holdings. Spraying on mosquito repellants, the chapter members walked over the entire farm. They found about 15,000 board feet of lumber on the 20 acres of swampland. With any luck at all, they reasoned, this timber would more than pay for the 20 acres.

Before harvesting the timber, they decided a long-range plan was needed. Here is what they planned: build a lake and stock it with fish; get some boats and rent them to fishermen who would use the lake; clear picnic grounds; build a lodge for community meetings; and raise Christmas trees.

Now that they had a plan, they began work. Equipment to harvest the timber was needed. The chapter members located an old tractor that wouldn't run and brought it into the vo-ag shop, where with a little tinkering, it ran again. Next, they rigged up a buzz saw to cut the timber.

They started cutting and selling the timber. The tree tops and limbs were cut up for firewood which was sold in town. Many of the boys had never harvested timber before, but after a few days of work, they learned enough to use their knowledge to make their own farm woodlots produce extra income.

After the first planting of Christmas trees, chapter members started cutting tamarisks in the swamp where the lake was to be formed. The tamarisk trees were sold for fence posts and rails.

Next, the brush was cleared off the "floor" of the marsh and this encouraged the springs to flow freely. A creek in the swamp was dammed and the lake began to fill. After the lake filled up, it was stocked with desirable fish.

Game conservation was not neglected. Small shrubs, such as multi-flora rose, were planted along the lakeside and in other desirable places on the farm.

In four years, enough income was realized to pay off the mortgage so that now the farm is owned free and clear. Several offers have been made for the land—most of them several times over the original purchase price. But the Chapter has no intention of selling.

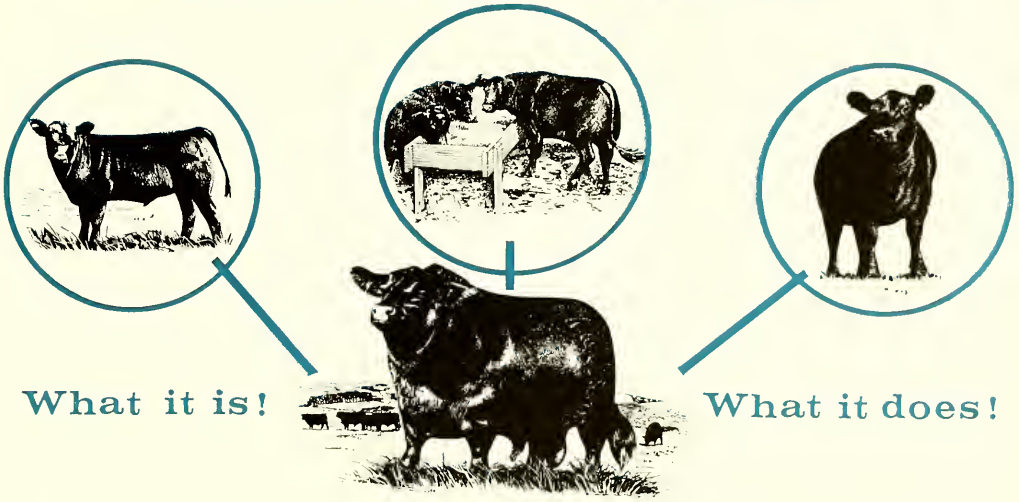
Advisor Miller explains why they don't sell: "In the past eight years, 560 Future Farmers have had the opportunity to use the farm as an outdoor laboratory. We hope that all our vo-ag classes in the future will also have the opportunity. We also have some students who do not live on farms, and the Holiday Hundred—as we now call the farm—gives these boys a chance to work with agriculture."

All the students who have had the pleasure to help make the Holiday Hundred a paying farm have the same sentiments. What better way, they say, to learn agriculture than to take a run-down farm and turn it into a profit-producing enterprise.

Stanley Robeson and Mr. Miller scale a log just harvested from the 20 acres that formerly was all swamp.

Advisor Miller shows Jim Weber, chapter president, where campsite will be cleared. Lodge will be at rear.

PRODUCTION TESTING



By Lyle V. Springer

THE PRINCIPLES of production testing are not new in the beef cattle industry. Thoughtful breeders have been applying the same general ideas for many years. The important point is: Many of today's breeders *write down* their results and don't rely on memory.

Production testing, to many persons in the livestock industry, is much more descriptive than "performance" testing. The reason is because a *production* test, as the word implies, covers several factors. A performance test, in most cases, usually measures only one or two factors.

Think of it in terms of baseball. A ball player's performance record would list his batting average, fielding average, and maybe his slugging average. But his production test would include such other important items as speed in running bases, throwing ability, leadership (or lack of it), and determination to win. A complete *production* test measures all the important factors and gives a complete picture.

In the same way, a performance test for beef type might be an animal's record in a big livestock show where the animal is compared to others of the same age. A performance test for weight gains would be simply weighing the animal at different ages. But progressive cattlemen today are keeping records on other factors. They are *production* testing for mothering ability in cows, fertility in cows and bulls, longevity in cows, particularly various strains of cows, carcass value of a bull's offspring, and many other factors which all add up to a complete picture of productiveness.

Beef breeders who give too much importance to one factor in producing cattle often get into trouble. The primary point in selecting cattle is balance. The same is true in mating various cows with particular bulls, and a balanced outlook is needed in judging information obtained in a production testing program.

More and more purebred breeders are production testing their cattle today, and even more of them will be tomorrow. There are two main reasons. First: Buyers are demanding records of both weight gains and corrections of conformation. And second: Breeders are finding that production testing offers an opportunity to obtain valuable information about many factors which make cows either profit-producers, or "free-loaders."

The Angus Herd Improvement Record, for example, is designed to help progressive cattlemen breed calf crops of consistent top quality and which have the ability to reach marketable weights at an early age. The most work for breeders who take part in the AHIR program is the study and thoughtful use of the information obtained. The arithmetic is done by machines in the Association's national office.

Basically, here is how the program works:

Breeders wishing to take part apply to the Association, and they are sent a listing of all the cows in their herd as listed in the Association's files. The breeder marks off the names of animals sold or otherwise disposed of, and adds the names of animals recently purchased and which have not already been added to his list in the files. He also writes down the following information about each cow's current calf: Its sex, sire, date of birth, tattoo, and registration number.

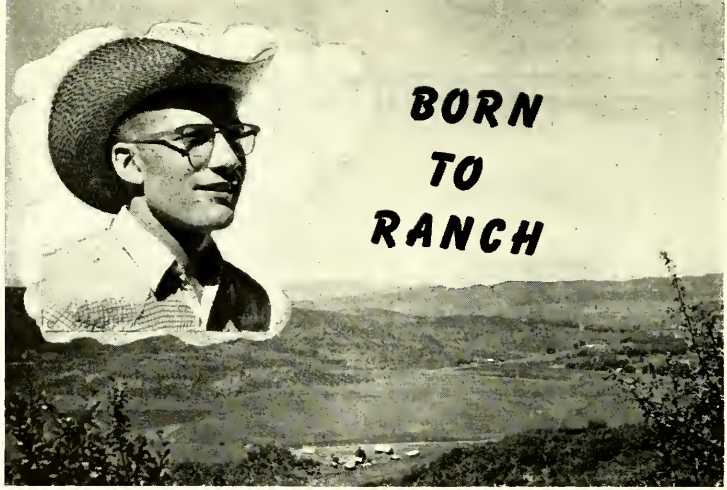
From this list of calves, the Association makes up a work sheet with places for the weaning weights, grades, and feeding method used. The breeder also is responsible for obtaining and paying for the services of a competent weigher and grader.

After these work sheets have been returned to the Association's offices, an information sheet is printed and returned to the breeder. This sheet provides him with a wide variety of information compiled by machines. He has actual, as well as adjusted weights at weaning, calf grade scores, daily gain, and a record of how the calf was fed. Similar information about the animal as a yearling, if it is held as a replacement, or if it is not sold at about 15 months of age, may be obtained at the proper time. In addition, and perhaps most important, the breeder receives averages of the productiveness of various herd sires.

Most up-to-date cattle breeders are more interested in the productive ability of an animal's *offspring* than in the

(Continued on Page 40)

That's the only way to describe Jerrald Truax, Pacific Regional Star Farmer from Steamboat Springs, Colorado.



By Horace McQueen

RANCHING is in his blood—and has been ever since he could walk.

"I don't think any other occupation could offer me as much as ranching," says 22-year-old Jerrald. "Sure, I've been discouraged a few times, such as when frost and drought destroyed our spring grain crop in 1957, and then in 1959, when anaplasmolosis in our beef herd killed seven cows."

"There are a few things that can be labeled discomforts, too, like having to care for the livestock when a heavy snow is on the ground. But when you come right down to it, I wouldn't dream of a career besides ranching."

Jerrald is a topnotch rancher, and his ranch, located in the famous Elk River Valley, really shows it. The country is beautiful—but rough. In many respects, it hasn't changed from pioneering days.

"Dad and I ranch in partnership," Jerrald says. "I bought 400 acres of land to add to Dad's 760 when we formed the partnership in 1957. We also rent a 400-acre farm about a half mile from here for additional crop and pasture land."

"I can't begin to take credit for all my success," Jerrald says. "My parents and agriculture teacher have been a big help. Mr. Mack Jones, the ag teacher I started out under at Steamboat Springs, met with my family and me right after I enrolled in vocational agriculture and joined the FFA. We started planning for my future entry into this partnership with Dad."

Jerrald has come a long way since that first year when his supervised farming program was three beef cows and six ewes. The second year, he rented a 65-acre farm near the ranch to raise hay and grain. Then when he was a senior, the partnership was formed. Mr. Truax contributed his 760 acres, about $2,500 worth of machinery, 25 beef cows, a team of work horses, and 13 riding horses. Jerrald's contributions were a tractor, four cows, six ewes, and all production from his 400 acres.

One of the first things he and his dad did when they formed the partnership was to analyze all parts of the operation and make long-range plans to increase the efficiency. They are now well along with many of their improvements and revise the list from time to time.

The first major improvement was to revamp the record and accounting system to give a more realistic picture of the total operation. Upgrading of the beef herd was also of prime importance, and they began using artificial insemination on the better cows to produce better replacement heifers.

More and better hay and grain from their cropland is a continuing goal. The first year after he bought the 400-acre ranch, Jerrald baled about 3,000 bales of hay from the meadows. Production next year was about 4,000 bales, and last year it produced over 7,000 bales of high quality timothy and clover hay.

The improvement of their farm home and the surroundings was also of first importance. The father-son team built a new 30 by 46 foot ranch home and moved into it last fall. Their old home was built by the first migration of white men into northern Colorado. Jerrald ran a plastic pipe from a spring on the side of a mountain about a mile away to bring water into the home. Before this, all the water for the home had to be hauled in. Besides giving Mrs. Truax all the water she can use, it saves the time and labor of hauling.

The farming and ranching program has grown each year. In 1960, the partners had 96 breeding ewes, 34 beef cows, 33 calves (mostly yearlings), 6 dairy cows, and 21 horses.

The horses are used in another phase of the ranching operation that's really interesting. Jerrald and his dad run a big game guide service in the summer. Generally, Mr. Truax carries the hunters up into the high country while Jerrald stays home to manage the ranch.

Although they keep separate records on the big game guide service—for business purposes—Jerrald considers it an important part of their operation. It gives them an opportunity to make a profit from the wild game which they support and from the horses which would be idle most of the time.

Jerrald picked up quite a bit of knowledge in the vo-ag shop—and it

Jerrald and his dad discuss their accounting system in their ranch business center. Mom is the bookkeeper.

The belly-deep timothy and clover meadow runs right up to the Truax's well-sheltered ranch house at the left. Jerrald is on one of his best horses.

has paid off. The power take-off on one of their two tractors was repaired by Jerrald. Then the ranch needed a combine. Instead of buying one, Jerrald began taking two old combines on the ranch apart. Now they have a good combine—with many spare parts.

He has also used his shop skills in many other ways—like doing all the plumbing and wiring of their new home. Wiring is one of his specialties—he won the FFA Foundation Award for Electrification in Colorado.

Besides being a full time ranch operator, Jerrald finds time to participate in other activities. He was Chapter FFA President in 1957-58 and in 1958-59 was elected Colorado FFA Vice President.

His first year in vo-ag, Jerrald won the "Top Greenhand" Award in his Chapter. The next year, he was Star Chapter Farmer and the next, District Star Farmer.

He is also active in the Farmers Union, both locally and nationally. For four years, he served as a building supervisor at the National Farmers Union Camp.

Today Jerrald is recognized as a solid citizen in the Elk River Valley. His neighbors know that when he sets out to do a job, he does it right. In his American Farmer Degree Application, Jerrald says that two lifelong ambitions have been to be an American Farmer and a successful Colorado rancher. As far as we are concerned, both goals have been accomplished.

A good knowledge of electricity came in handy for Jerrald when he and his dad built a new ranch home last fall.

Mr. Truax is well pleased with their ranch partnership. He usually runs the big game service in the summer.

Photo by Venard, Peoria

FFA . . .

IS A FAMILY TRADITION

By Marion E. Gentry

THE FFA has passed from one generation to the next in the family of Marvin Hutchinson. The Salisbury, Missouri, farmer was a state FFA officer 30 years ago, and he has seen two sons receive high honors in the FFA.

Mr. Hutchinson grew up on a farm near Salisbury where he served as secretary and president of his Chapter. He competed in state contests in field crops, poultry, and livestock judging teams. In 1937, he received the State Farmer Degree and was elected a state vice president.

After graduation from high school, he continued to farm with his father and expanded his farming program for four years. In 1935, he married and rented a 240-acre farm.

Those first years on the farm were lean ones. Two of the children were born, farm prices were low, and the house burned. He decided to buy the farm in 1949 and also bought a 120-acre farm nearby. Then in 1958, another 200 acres were added.

"The modern farm home, laying hen unit, cattle barns, and other improvements would have been impossible without family cooperation," says Mr. Hutchinson. Ronald, age 20, Kenneth, 18, and Loren Dale, 13, each have major responsibilities around the farm. Ronald and Kenneth have also been leaders in the FFA. Ronald served as reporter and vice president of his Chapter and was on the livestock, soils, and parliamentary procedure teams. He was a member of the National FFA Band in 1957 and received his State Farmer Degree in 1958. He is now treasurer of the Salisbury Young Farmers.

Kenneth was on several judging teams and was selected for the state and National FFA Chorus in 1957 and 1958.

Their farming program doesn't suffer from their other activities. The farm is rotated on a seven-year lime and phosphate program, and all soil is tested. Systematic farm improvements are planned annually.

Recently a barn was remodeled to add fattening cattle to the program which consists of several sows and 100 breeding ewes. Crops are improved pasture, corn, soybeans, wheat, and red clover. The family was selected as the Missouri Balanced Farming Award Winner in 1950.

"We try to keep up to date on modern farming methods," says Mr. Hutchinson. "Ronald attends the Young Farmer classes; I attend the adult classes; and Kenneth goes to college this year, so we will really be able to keep up with trends in agriculture." "We all know that you never learn enough, and that you are never too old to learn," he adds.

Song and music is a pleasure the entire family enjoys. Ronald, left, Mrs. Hutchinson, and Kenneth practice.

Combining clover seed on the Hutchinson farm. Ronald drives the tractor as Mr. Hutchinson checks the combine.

Ohio Future Farmers plant red pines during Athens County Forestry Field Day. They use good planting methods.

Tree Farming

Turn idle acres into busy acres

By Horace McQueen

ON MANY FARMS, those acres of woodland are probably the most neglected asset. With better care, many of you could easily open a new source of income by incorporating tree farming into your overall farm operation.

Tree farming means using good management practices to grow a quality product. And, growing timber is a crop that doesn't require a lot of money to get started.

Turning low-profit woodland acres into high-profit ones is not hard. But you just can't sit back and let the trees do all the work. To assure a good harvest of timber at regular intervals, you must carry out a sound management program. First, you must protect your woods from fire, insects, disease, and overgrazing. Second, you must harvest or thin your timber when the need arises. Third, you should plant seedlings in places where more are needed.

Improvement and Harvesting

To assure a regular pay check from timber sales you must improve and properly harvest the timber stand. Where do you begin? Before deciding, take a leisurely walk through your woods. Notice any crooked or otherwise defective trees? These will need to be cut out, and those crowded stands should be thinned.

You may find that a chain saw would be a good investment, especially if you have a fairly big stand of timber. In many cases, it will pay for itself in a short time—and it's a whole lot easier than using an axe.

Start by cutting, or deadening, the least desirable trees. Your aim is to leave and improve those trees which will yield the greatest dollar return. Much of this "cull" timber can be sold for enough money to pay a good price for your labor. Maybe some can be used for fence posts, pulp wood, or firewood. Possibly some trees can be sold for timber.

Thinning stands and pruning are two other important improvement practices. Thinning crowded stands of pines and valuable hardwoods allows more room for rapid growth. In thinning, first cut the diseased, defective, poorly formed, and other inferior trees. If the stand is still crowded, thin so that the tops do not overlap. Pruning both live and dead limbs from a tree frequently improves its market value. Pruning is slow, hard work but it is needed to produce quality saw timber, poles, and veneer logs which demand premium prices.

Later, or maybe even now, you can start making regular cuttings of marketable timber. The two most common methods of harvesting are selective cutting and seed tree cutting. Use the one best for your stand. To be sure, talk with local foresters or contact the extension forester at your state agricultural college.

Selective cutting means cutting and marketing selected trees at regular intervals. The remaining trees are left as growing stock. Cut the crooked or otherwise defective trees first. Then cut out trees in crowded spots and any large mature trees.

Seed tree cutting means that all trees are cut out except a sufficient number to re-seed the area. This method is best under the following conditions:

1. In stands composed largely of short, branchy trees.
2. Stands damaged by insects, diseases, or seriously damaged by fire.
3. Stands composed chiefly of inferior species.
4. Mature pine stands.

Seed trees left should be 10 inches or larger in diameter at chest height; have good, well developed tops; be of desirable species and form, and have been good seed producers in the past. Usually six to eight well-spaced trees per acre will do the job.

Block cutting is another method of harvesting and is used principally in the West. Using this method, all the timber is harvested on a block of land, and then the area is re-seeded.

Marketing

It is best to have a buyer for your timber *before* you start cutting. There are a number of ways you can find buy-

(Continued on Page 60)

These Future Farmers learn the proper way to mark trees from a local forester. He explains to them that the top mark means this tree is to be cut and the bottom mark then leaves a record of what timber was taken at this harvesting.

National officers started the conference with a briefing on the national organization.

Leadership . . . A NEW LOOK

LEADERSHIP has a broader meaning for the state officers in the six New England states. Along with the National Officers, they took part in a leadership training workshop on February 4, at Segreganset, Massachusetts. The National Officers were in the area on their annual Good Will Tour.

Host for the event was the Bristol County Agricultural High School. The FFA officers and their adult advisors were housed in the school's new dormitory. This proved to be a blessing indeed when a blizzard blew in and dumped about 20 inches of snow, forcing the group to stay an extra night.

The night before the workshop, the out-of-state visitors attended the "Aggie Night" Banquet sponsored by the Bristol FFA Chapter. This banquet is a success story within itself. According to Advisor Wyman Hawkins, it started as a father-son affair and became a parent-son banquet when mothers expressed a desire to attend. Then it became "Aggie Night" when alumni and friends requested that the be allowed to come. Some 400 people enjoyed the 1961 banquet which included a chapter business session and entertainment.

The workshop got underway at 8:00 a. m., Saturday. First item was a word of welcome from Robert Maini, Bristol FFA president, and Mr. John Farrar, school director.

In his opening remarks, National President Lyle Carpenter told the group, "Only through learning to do and doing what we learn will we be good Future Farmers." He stated that, "by working together, we will all be able to grow."

Other national officers briefed the workshop participants on various activities of the National Organization.

The workshop that followed was a series of discussions, buzz sessions, and committee work—all designed to train state officers for leadership and to strengthen the FFA. Leading topics were: Principles of the FFA that Should Be Understood by the State Officers, Training State Officers for Effective Leadership, How Can a Nominating Committee be Used Most Effectively, and How Can the New England States Improve Their Participation in the National FFA Convention.

In addition, one officer from each state presented a two-minute talk on the most importnt FFA activity in their state. The states represented were Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island.

In the evaluation session, Future Farmers praised the value of the workshop to the FFA program. They had recommendations for changes, however, should other meetings be held. For example, the Good Will Tour schedule of the National Officers is much too crowded to also include leadership workshops. They agreed that perhaps summer meetings would be better, since most state officers would be newly elected and would profit more from the experience. They though a social the night before to get acquainted would enable them to get down to business much sooner.

Before leaving for their homes Sunday morning, a vesper service was held for those who would not be able to attend their own church.

Committees reported and delegates took part in discussions that followed. Evaluation session ended conference.

Principles of FFA were discussed in "buzz sessions." They reported back to the group, listing important ones.

A nominating committee demonstration showed the conference how this committee can be used most effectively.

Much of the work was done in committees. They discussed training their state officers for effective leadership.

Bristol's "Aggie Night" banquet preceded the conference. Chapter officers shown during opening ceremony.

I TRY TO PRODUCE as efficiently and economically as possible—and diversify my operation. So far, I have done all right," says Arthur Anderson, 18-year old Ansley, Nebraska, Future Farmer.

His operation is one any farmer would be proud to own. Diversification, and, in Arthur's words, "going the opposite way most farmers go," is the secret to his success.

"If hog prices go down and farmers start selling, I start buying. Then when prices start going back up, I always have a good breeding herd ready to produce for the top market. I practice the same thing with my cattle operation."

This irrigated corn produced well over 100 bushels per acre last year.

ARTHUR ANDERSON'S formula for farming

The combine owned in partnership with his father and their farm hand has produced quite a profit for Arthur.

Arthur and his advisor, Dean Jochem, examine a clump of slender wheatgrass. Arthur harvests and sells the seed.

Custom work is a vital part of Arthur's farming program. Arthur, his dad, and their farm hand, Future Farmer Bob Eggleston, each own a one-third share in a self-propelled combine. Each partner gets one-third the profits. They combined over 1,000 acres of wheat and grain sorghum last year—charging $5.00 an acre for wheat and $4.00 an acre for grain sorghum.

Corn picking is another custom operation that has proven profitable. Arthur rented his dad's corn picker last year and picked and shelled over 500 acres. He charged 10 cents a bushel for picking and shelling.

Hay is a big business in his part of Nebraska. Arthur decided not to lose out on what seemed to be a golden opportunity. So early in 1960, he bought a new hay baler. His profits last year convinced him he will be in the custom baling business for quite some time. One Saturday last July he grossed over $225 in 12 hours baling hay.

Another of his custom services is grass seeding. In 1960, he planted 2,000 acres to grass. When he used his own tractor, he charged $2.00 an acre. Arthur and three of his fellow FFA members own the seeder in partnership.

From early spring to late fall, Arthur is busy nearly all the time. As soon as school is out for the day, he begins work, sometimes not quitting 'til midnight. His custom operation alone is a big job, but somehow Arthur finds time to go to school, be chapter FFA president, and run a good sized farming program of his own.

Cattle, hogs, and grain make a good combination. At present, he has 70 head of hogs, 53 feeder calves and 43 acres in grain and pasture. Arthur rents the land from his dad. The feeder calves looked mighty poor when Arthur bought them, but he didn't pay a big price for them. When they are fed to 700-800 pounds, they will be sold —at a good profit.

Arthur is keeping four purebred Hampshire gilts and three Hampshire-Yorkshire gilts as breeding stock. Neither he nor his dad have a boar. They use the boars belonging to the Ansley FFA Co-op and figure they profit by it. The Co-op charges $2.00 for breeding and 18 cents a day for keeping the sows for the first 21 days. After 21 days, the cost goes up to 25 cents a day.

It's a pretty good arrangement. Arthur say, "We leave the sows there until a day or two before they farrow, then bring them home. It's cheaper than bringing them home right after they are bred and then carrying them through to farrowing time."

Arthur does all he can to strengthen the co-operative. All members of the Co-op are FFA members, former members, or their dads. The Chapter members own the Co-op hogs on a share basis. Good boars are essential—the Yorkshire and Hampshire boars they have now were bought from a boar testing agency.

It seems that all this work would be enough for Arthur. But it's not. He also sells grass seed from seven acres of slender wheat grass and switch-grass. Profits from the seed last year was over $30.00 an acre. But that's not all! Arthur is now a *dealer* in grass, corn, and milo seed, selling to local farmers. He gets a percentage of the selling price as his profit for selling the seeds.

To do a good job in all his many enterprises, Arthur feels good machinery is essential. He owns a diesel tractor and equipment, hay baler, one-third interest in the combine and a one-fourth interest in a new pickup and forage harvester he and his dad just bought.

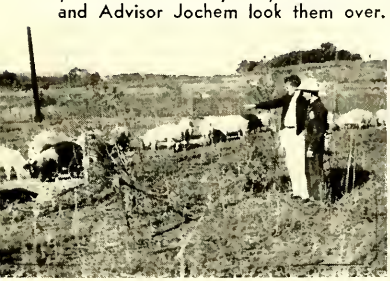
The total machinery investment comes to well over $10,000—all paid for. This is the big reason Arthur is so interested in custom work—it pays for new machinery.

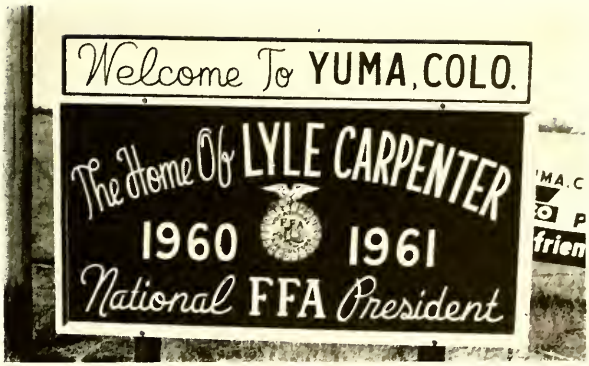
The investment in livestock and feed is well over $11,000. In all, this makes a total investment of over $21,000. Debts come to only $735—leaving him with a net worth of about $20,000. The profit in 1960 from his farming and custom operations was about the same as the average **full time** farmer earns annually. This year, the investment will make a big jump when he expands his feeding operation. He is planning to feed out over 100 calves plus more hogs.

What does he plan for the future? That is not a hard decision, he says. "I plan to keep on expanding my operation. The home farm is 400 acres and we have a 99-year lease on it. Buying land in this area is a problem, but a 99-year lease is about the same as owning it. Dad's operation has enough potential for both of us to operate. We are also going to buy a 240-acre farm down the road a few miles. The price seems high now, but we can have a much bigger operation, and I know it will be profitable."

Mr. Anderson couldn't be happier. The only thing he wonders about is what will happen when Arthur graduates from high school in May. He says, "It's all I can do to keep up with him now. I don't know how I will manage it when he's working full time."

"Put good feed into good hogs and you will make money," says Arthur. He and Advisor Jochem look them over.





HOMETOWN PRIDE

Nearly everyone in Yuma was present to salute the young man who brought national recognition to their town.

THE SMALL TOWN of Yuma, Colorado, with a population of less than 1,900, paid a prideful tribute January 11 to one of its own—Lyle Carpenter, National FFA President.

The occasion was sponsored by the Yuma Chamber of Commerce, Rotary Club, Lions Club, and the Yuma FFA Chapter. Members of each club were appointed to a committee with Yuma Mayor, Russell Parrish, who acted as committee chairman. The program was planned by Rollie Deering and Max Olsen, vice president and secretary of the Yuma Chapter.

Mayor Parrish proclaimed the day, "Lyle Carpenter Day," and it was observed in all the town's business establishments. The evening's festivities started with a banquet attended by representatives from each of the service clubs plus special guests and newsmen from Denver and Sterling. Max Olsen served as master of ceremonies.

Later that evening, an open meeting, which drew a crowd of 500, was held in Yuma High School auditorium. Rollie Deering was master of ceremonies.

The banquet speaker was District Judge Joseph Cook of Denver, who is also the advisor of Colorado Boys State for the American Legion. Speakers at the open meeting were Evan Slack, farm program director for radio station KHOW in Denver; M. G. Linson, Colorado Supervisor for Agricultural Education; and the guest of honor, Lyle Carpenter, who gave a fine address on "The FFA and I."

The evening was a big success and proved that the community is justly proud of their favorite son who has the responsibility of leadership for 380,000 Future Farmers.

Yuma Mayor, Russell Parrish, welcomes the many out-of-town guests and the townspeople to the big celebration.

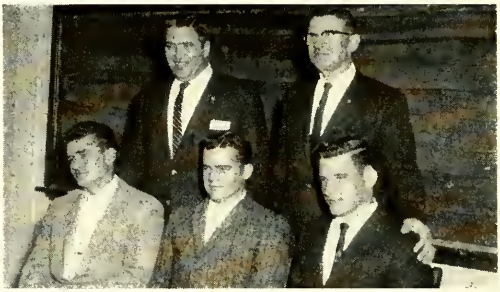
Lyle's parents, Mr. and Mrs. Clifford Carpenter, left, and District Judge Joseph Cook, Colo. Boys State Advisor.

Lyle chats with two men who take a special pride in his achievements. Advisor Rife, left, and Colo. Agricultural Education Supervisor, Linson.

photo roundup

Superiority of American over Soviet agriculture is theme of exhibit by Lafourche Parish, Louisiana Federation.

These Albemarle County, Virginia, Future Farmers got an indoctrination on agri-business when they visited the Southern States Cooperative in Richmond, Virginia.



Palmetto, Alabama, FFA has three National Farm Electrification winners. Winners seated: Brandon McCool, Raymond Junkin, and Arthur Duckworth. John Spence, Alabama Power Co., left, and Advisor Claybrook, right.

"If this keeps up, I don't know where I will put them all," says Murphysboro, Illinois, Future Farmer, Paul Penrod. He holds five of his seven lambs from two ewes.

South Dakota FFA Crops Judging Team from Chamberlain, examine wheat at the Minneapolis Grain Exchange. They received the trip for winning in State crops judging.

Hessom Nehrir from Iran looks at oats on farm of Dick Hummel, left. Nehrir lives with Dick and is guest of Spencer, Iowa, FFA Chapter. Advisor Ed Mulder at right.

This insert originally appeared in County Agent & Vo-Ag Teacher and is reproduced here courtesy of Geigy Agricultural Chemicals

JOHN HARMS REPORT

THE 1961 OUTLOOK FOR PRE-EMERGENCE HERBICIDES IN CORN:

WHAT YOU CAN EXPECT OF PRE-EMERGENCE HERBICIDES

By JOHN HARMS

WHAT is the unvarnished truth about the new pre-emergence weedkillers? Just how good are they? What do the experts across the country really think about them?

Here, in their own words, is what well-known weed control specialists, plant pathologists and agronomists say about Atrazine and Simazine. Their reports stem directly from their own field tests or from evaluation of farmer experiences in their areas.

• They give Atrazine and Simazine a pretty good send-off—although they don't hesitate to point up some of the difficulties farmers encounter. They point up some of the bugs in the use of these chemicals—and tell how to avoid them.

• Some of the scientists report amazing results. Some tests didn't come up to snuff. In each case, the experts tell you why. For some farmers, the new herbicides have paid off richly—for some they didn't. The experts tell you how hit-or-miss can be avoided.

In this interview report, we have tried to get the straight lowdown on Atrazine and Simazine in advance of planting season to arm you with the kind of information your farmers will need this year.

As a reporter, I hope you find this of real value.

IN IOWA, 1960 WAS AN EXCELLENT YEAR FOR PRE-EMERGENCE SPRAYS

E. P. Sylwester, *Botany & Plant Pathology Dept., Iowa State College:* As every farmer knows, each growing season is different from the one before. And as we are beginning to find out, results obtained from pre-emergence sprays in corn vary with the variations in growing seasons. How these chemicals are used, therefore, depends a great deal upon prevailing growing conditions—and mostly with the level of moisture conditions we get in any particular year.

For example, in Iowa 1959 was a relatively dry year in many places and results from pre-emergence sprays were less than we had hoped for. This was particularly so when dosages were incorrect, or seedbeds not adequately prepared. On the other hand, results were good where moisture conditions were favorable.

However, 1960 was an excellent year for use of pre-emergence sprays—primarily because we had more moisture. Use of sprays generally last year was effective and gratifying. The planting season generally was late, although occasional dry spells permitted fairly adequate seedbed preparation.

This resulted in quite adequate seedling weed control, because the frequent rains encouraged germination, and necessitated additional workings before planting. Even though the season was late most corn matured into a bounteous crop, the second largest in the state's history.

A summary of some results obtained with pre-emergence demonstrational sprays follow. In one field the following yields resulted:

Check, 72 bushels per acre; Simazine (12 inch band), 84 bushels per acre; Atrazine (12 inch band), 94 bushels per acre; 2,4-D (12 inch band), 64 bushels per acre; Randox (12 inch band), 84 bushels per acre; Simazine (blanket), 99 bushels per acre, and Atrazine (blanket), 106 bushels per acre.

Fertility and insect control were adequate, but a 6-inch rain occurred a week after planting and this undoubtedly contributed to the poor showing of the 2,4-D, since both stalk count and yield were down in the 2,4-D treated plot. All plots were cultivated three times, but the first cultivation was late and rapid.

In another demonstration plot the following results were obtained, all blanket treated and not cultivated: Check, 79 bushels per acre; Atrazine, 126 bushels per acre, and Simazine, 131 bushels per acre. These two chemicals outperformed, by far, two others tested. Excessive rain throughout the season made for weedy plots, except those with Simazine and Atrazine which remained practically clean throughout the season.

The check plot was rotary hoed once and cultivated twice. A more normal rainfall season would have resulted in much less weed growth in the other plots.

In another plot where Atrazine was used in a 12-inch band, on extremely weedy bottom land, the Atrazine was applied, and then it turned dry. The cooperator rotary hoed lengthwise once and cultivated the corn once. The check plot was

"Use of sprays generally last year was effective . . . gratifying."

rotary hoed once and cultivated twice. The Atrazine treated plot yielded 129 bushels per acre and the check plot 99 bushels per acre.

In all the above plots even visual examination disclosed better weed control yields in treated over non-treated plots.

There are other noteworthy results to report, but space does not permit. It should be pointed out in all fairness that in all these plots, more was involved than just good pre-emergence weed control. All plots had apparently adequate supplies of fertilizer, there was a capacity stand of adapted hybrids, there was adequate moisture, fair to good seedbed preparation and good soil insect control.

What of the future of pre-emergence sprays? We are encouraging all our farmers to try an acre of one or two of the most promising materials under their own conditions, type of soil, moisture, temperature, organic matter content, and their own specific hybrid or hybrids. They should have an inherent annual weed problem, and preferably use it on land where corn follows corn and where weeds have always been a problem. They themselves must learn the "feel" of the materials and iron out difficulties of measuring, calibration and application. Furthermore, they must judge results, not on a single year's performance, but by the average of several year's results.

Pre-emergence sprays are here to stay and they are another weapon in our struggle against weeds.

IN SOUTH DAKOTA MOST SPRAY APPLICATIONS WERE SATISFACTORY

Lyle Derscheid, *Weed Control Speciolist, South Dakota State College:* Simazine has been used experimentally in South Dakota for four years and Atrazine was tested two years. Farmers used a limited amount of Simazine in 1959 and a similar amount of Atrazine during 1960.

During 1957 and 1958, rates of 2 to 4 pounds active ingredients per acre of Simazine killed up to 90 per cent of the annual weeds—primarily foxtails, pigweed, lambsquarters, barnyard grass and kochia. We noticed that we obtained good weed kill whenever we had some good rains during the first 2½ weeks after spraying.

We studied the rainfall pattern at six places in eastern South Dakota for the past 10 years. We estimate that there was enough rainfall shortly after corn planting time to make Simazine effective from 3 to 6 years out of the 10. Atrazine would have killed the weeds 5 to 8 years.

When adequate rain falls to activate the chemical, 2 pounds of active ingredients of either chemical per acre on the area treated will generally replace the first cultivation. Four pounds of Simazine will usually take the place of 2 and sometimes all 3 cultivations.

The most practical way to use these chemicals is to apply them in 14-inch bands over the row. In bands the chemical can replace the first cultivation. Later cultivations are needed to kill weeds between the rows. Consequently, 2 to 3 pounds per acre on the area treated are all that is needed. When we put it on 14-inch bands, we only treat about one-third of the field so we use only 2/3 to 1 pound of active ingredient per acre of field.

We have compared sprays with granular forms of the same chemicals. When we apply the same amount of active ingredient, we find that sprays and granules give about the same results. The big problem is getting the granules applied at the proper rate.

If poor results occurred, we have found that they could generally be attributed to the lack of rainfall after treatment or faulty application. During 1960 most spray applications were satisfactory, because we had several good rains at the right time.

We know of one farmer in Clay County who was unhappy with the granules so he treated only part of his field. He did not think that the chemical had killed any weeds until he started to pick the corn. He then observed that the weed growth in the untreated part of the field made it more difficult to harvest the crop.

We believe that chemicals applied pre-emergence will be used particularly during wet springs when it will be difficult to perform the first cultivation. Farmers know that weeds have to be killed when they are young or they will reduce crop yields.

CORN WITHOUT WEEDS— KILL WEEDS BEFORE THEY START

Oliver C. Lee, *Dept. of Botony & Plant Pothology, Purdue University:* The simplest and surest means of having a weed-free corn field is to prevent the weed growth before it starts. This is possible by applying an effective pre-emergence herbicide when the corn is planted. Keeping the weeds away from the corn plants when they are small and helpless is of utmost importance. It is then that the weeds do the most damage to the crop. Most corn growers have observed the effects of a heavy infestation of giant foxtail, smartweed or a combination of weeds common to corn fields. The weeds cause the corn plants to become spindling and lack the good lush green color of healthy, sturdy plants. Even if weeds are removed later, the results of that early competition usually shows up in fewer bushels of corn at harvest time.

The greatest returns from investments in pre-emergence herbicides are obtained when they are used on extremely weedy fields where cultivation or spraying with 2,4-D post-emergence does not do an adequate job. There are also situations when timely cultivations are not possible due to wet field conditions. Thus, chemical treatment will serve as insurance against the weeds taking the crop. Since most pre-emergence treatments are rather costly, band applications over the row are recommended. This type of treatment when applied in a 14-inch band over rows spaced 40 inches apart requires only one-third as much chemical as over-all applications. If the weeds are kept out of the row where the cultivator cannot reach, the weeds between the rows can be removed by timely cultivations.

Atrazine and Simazine are two pre-emergence herbicides that behave in about the same manner. They kill both broad-

"Simazine and Atrazine are the magic words . . . down on the farm."

leaf and grassy weeds when applied under favorable conditions for pre-emergence. Rates generally recommended are 1¼ pounds of 80 per cent material (wettable powder) applied on a 14-inch band, using at least 6 gallons of water per acre, although the rate needed may vary with soil type.

ATRAZINE OR SIMAZINE WILL BE USED EXTENSIVELY IN NEW JERSEY

D. A. Schallock, *Weed Control Specialist, Rutgers University, New Brunswick, N. J.:* The interest in new herbicides for controlling weeds in corn is really an amazing thing. It is amazing to me because corn was a crop on which chemical weed control was quite successful.

Before joining the ranks of those talking and writing about recent advances in weed control on corn, let's look at 2,4-D which was and is particularly suited to control weeds in field corn —and hope this reflects the thinking of others responsible for weed control in the Northeast.

From the time before weeds and corn emerge from the soil until a directed corn spray is applied when the crop is several feet high, 2,4-D displays a remarkable flexibility in use for controlling broadleaved weeds. Pre-emergence treatments are also effective in controlling germinating annual grasses.

I advise farmers who have been using 2,4-D safely and successfully, not to be swayed by the deluge of information released about new herbicides. I also know many sweet corn growers who are very successful in controlling annual broadleaved and grassy weeds with a come-up application of dinitro.

So much for my position on 2,4-D. Now let's take a look at the newer weedkillers.

Simazine and Atrazine are the magic words on the radio, in the press, and even down on the farm. As far as the farmer is concerned, he would prefer that we talk about only one of these—Atrazine or Simazine, but not both. Confusion over choice of which to use has slowed down the acceptance of either material.

From the researcher to the farmer, Atrazine is emerging as the choice between these two materials. Let us be perfectly honest about the reasons for choosing Atrazine. Those who prefer Atrazine because its increased solubility will reduce the danger of residue carry-over to the following crops are on thin ice. Indeed, several investigators in the Northeast are reporting equal, if not increased residue from Atrazine as compared to Simazine. "The more soluble Atrazine will work better in dry weather" is an assumption not yet proven in research.

The proven justification for Atrazine is the fact that it may be used from planting time to post-emergence when weeds are not more than 1½ inches tall and the corn not more than 4 to 6 inches high. When used post-emergence on young perennial weeds like nutgrass (Cyperus esculentuo), Atrazine has given encouraging control. Farmers want a single material that may be adapted to all possible courses of action.

The heavier soils of the Northeast are receiving applications of two pounds of the active material of Atrazine or Simazine. The light soils show excellent weed control with 1½ pounds active or 2 pounds of the 80% wettable powder. Although farmers are attracted to banded applications for economy, they use total coverage rather than attempt to work out the details of band application.

All factors taken into consideration, Atrazine or Simazine will be used on many acres of field and sweet corn in 1961.

WEST VIRGINIA WEED CONTROL TRIALS IN CORN SHOW PROGRESS

Collins Veatch, *Agronomy Dept., West Virginia University:* Atrazine and Simazine at rates of 2 pounds per acre suppressed nut and quackgrass growth, but rates of 4 to 6 pounds per acre gave better weed control. Atrazine was more effective than Simazine when applied post-emergence.

One cultivation at layby gave significant increases in corn yields and some improvement in weed control in the Point Pleasant trial last year. Under the wet variable conditions at Wardensville the cultivated area did not vary significantly from the uncultivated.

Under moist conditions, granular materials appeared to be as effective as spray applications for pre-emergence.

Increasing the 2,4-D application rate above 1 pound per acre tends to injure the corn without increasing the weed control.

REPORT ON WEED CONTROL IN CORN FOR THE WESTERN UNITED STATES

W. R. Furtick, *Farm Crops Dept., Oregon State College:* Use of chemical weed killers in corn is more complicated in the western United States compared to other areas, because of the low rainfall during the growing season. Most of the western corn acreage is grown under irrigation in the regions that have practically all of their rainfall in the winter. This complicates the use of pre-emergence weed killers.

There was substantial use of pre-emergence sprays in the West this past season with variable results. Where corn was irrigated by sprinkler after treatment, or the pre-emergence spray was incorporated into the soil by light harrowing or shallow discing, the results were usually good. But growers who applied pre-emergence weed killers on land irrigated by deep furrow between the corn rows did not get desired results because there was no top soil moisture to activate the chemical.

In the Pacific coastal areas where most irrigation is by overhead sprinkler, pre-emergence weed control has been

"Most of the acreage this past year was treated with Atrazine."

used successfully for a number of years. Most of the acreage this past year was treated with Atrazine. This material has performed much better than previously used materials, because the weed problem is a mixture of various grasses and broadleaves.

In some areas Atrazine was disced into the soil in the early spring for the control of quackgrass. This gave excellent control of quackgrass and later germinating annual weeds. This treatment will be used more widely during the coming year.

There was some farmer use of materials such as Atrazine on furrow irrigated land in which the material was harrowed-in prior to the planting of corn. These applications were generally successful and there will be an expanded use of this approach in 1961.

The triazines such as Atrazine and Simazine have not been recommended by the experiment stations or the manufacturer in the low rainfall areas irrigated by furrow, due to the failure of the chemicals to disappear in time to avoid injury to crops other than corn the following year. In these areas, the rainfall is too little to aid in the disappearance of the weed killer over the winter. This is also true for areas in California where double cropping is practiced. The long residual type herbicides will not disappear soon enough to avoid injury to the crop planted immediately after the harvest of corn.

WHAT THE SCIENTISTS SAID 'IN A NUTSHELL'—

1) Pre-emergence weed control can eliminate one or all cultivations in most farming regions of the country. Scientists seem agreed on that. At the very least, Atrazine and Simazine are major supplements to any corn-growing operation.

2) Band treatments are considered most practical from the standpoint of cost, although cost is beginning to be of smaller importance. Any farmer who *really* wants to up his yields might be encouraged to use broadcast application for absolute best results.

3) The amount of moisture—either rainfall or overhead irrigation—is of prime importance. Main thing is that the chemicals are wetted down after application, to activate them. They are not recommended in very low rainfall areas irrigated by furrow. Overhead or other irrigation—fine.

4) Neither Simazine nor Atrazine is the whole answer to a big corn crop. While they eliminate some work and can generally assure a bigger-than-before crop, proper fertilizing, insect control, and other established good cultural practices are still essential. While herbicides can substitute for cultivation, they are no substitute for good farming practices as a whole.

5) In some areas, Simazine is preferred—in others, Atrazine. Farmers can get good results with both, although you might check local recommendations for the one of choice.

6) For farmers hard to convince, suggest a test plot to compare with corn grown in usual manner. But to make his eyes pop when he harvests in fall—make sure he follows the recommended procedure accurately.

7) Indications from many sections of the country are that Simazine and Atrazine will play a big part in 1961 corn production. Farmers who are not familiar with what they can do, may lose another year before they try them. And that's money that can't be regained.

8) These chemicals are particularly effective in fields where annual grassy weeds have become an annual problem.

NOTE: Many of the application rates cited in these reports are based on active ingredient. Both Atrazine and Simazine herbicides are commercially available as 80% wettable powders. Label recommendations indicate the correct rate of application for your particular soil type. Granules are also available. Follow label directions.

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Secretary of Marketing, W. B. Peterson, discusses way of doing business.

FUTURE FARMERS LOOK AT FREE ENTERPRISE

They got an inside look at big business and learned why and how our system operates.

IN LATE December, 300 Illinois Future Farmers traveled to Chicago to take a look at the American free enterprise system. Their trip was sponsored by the Illinois Agricultural Association, the state's affiliate of the Farm Bureau.

The goal of the conference was direct and simple: To describe the American way of life—the private capital economic system—and to show how our religious and moral beliefs are interrelated with everyday political and economic action.

Many had learned about the conference from FFA members who attended the initial conference in 1959. The young men came from chapters that had participated in county Farm Bureau-FFA acquaintance programs.

To set the tone of the meeting, "seven keys" to the American way of life were discussed by conference leaders. Then the participants divided into groups of 10-12 for discussion sessions.

The discussions, led by IAA, IAA affiliate, and American Farm Bureau Federation staff men and by vocational agriculture supervisors, proved stimulating. They provided the eager young farmers with the chance to criticize some features of the way we do business in America and to get straight answers. If our way of life has some imperfections, what causes them? How can they be corrected? What are the differences between our system and the system practiced by Communists and Socialists? Those were some of the queries that were weighed.

A practical approach came when the Future Farmers visited executives of Chicago's leading businesses and asked questions on how these businesses operate.

The conference was not all work. In addition to visiting with one another, FFA members took in a hockey game and a stage play.

What did the Future Farmers think of the meeting?

"The conference stimulated personal thinking and gave us a chance to take part in a program of importance outside FFA work," observed Richard Walters, young Hebron, Illinois, farmer who graduated from high school in 1960.

"We had fun," agreed Illinois FFA president Lynn Laible, "but my biggest memory will be the awakening it created within me to appreciate our private capital economic system."

The "seven keys" of Capitalism studied by the group were:

1. Basic belief in God.
2. The individual is of prime importance.
3. The government is a servant.
4. The profit motive is an integral part of our system.
5. Private ownership of property.
6. Price is a guide to production and consumption.
7. Free competition.

This Farm Bureau staff member tells how our free enterprise system works.

This FFA group toured the plant of one of the big Chicago newspapers.

FFA officers hold a meeting at lunch. From left: Kenneth Beswick, Ill. Vice President; Ron Gehrig, Ill. Reporter; Lynn Laible, Ill. President; and Aleck Biehl, Lawrenceville chapter president.

We're Conquering The Weather

Science is making rapid strides in weather control. See if you agree with these predictions for the future.

By Jean Carper

SUPPOSE A FARMER could have rain and sunshine any time he wanted it. Suppose he was no longer plagued with drought, floods, windstorms, hail, and lightning.

"Of course, it would be a paradise," agreed an Ohio farmer. "I'd turn the rain machine on my corn crop right now. Where can I buy one?"

Despite his skepticism, this farmer was closer to the truth than he dreamed. It isn't likely he'll ever own a gadget that grinds out made-to-order weather, but someday—sooner than you think—he may be able to command much of the weather for his crops.

Amazing as it seems, our leading meteorologists claim they will control the weather within our lifetime. "We'll know how to control rain, hail and lightning within 10 years," predicts Dr. Horace R. Byers, chairman of the Department of Meteorology, University of Chicago. "And the benefits to agriculture will eventually be enormous." "Millions of dollars worth of crops will be saved from drought and storms, plus cultivation of now arid areas, especially in the Southwest."

"This does not mean the mysteries of weather are clear to us," he cautions, "but we do have some clues which should prove out in a few years."

At present, the secret of weather control seems to be seeding clouds with dry ice or silver iodide smoke which usually produces ice crystals and precipitation. This is the familiar tactic of commercial rainmakers who reportedly do a multimillion dollar business among farmers and ranchers. Such rainmaking, according to government reports, is fairly successful. President Eisenhower's Advisory Committee on Weather Control, set up in 1953 to determine if rainmaking was a money-wasting hoax, reported that seeding winter-type clouds in mountainous areas of western U.S. produced an average of 10 to 15 percent more rain which could not be attributed to pure chance.

One case the committee turned up was dramatic. In June 1950, a rainmaking corporation began seeding clouds over 100,000 acres of wheat land in eastern Washington state. And the rains came. Two storms, in fact, that very month. As a result, the wheat yield, usually only 7 to 8 bushels per acre, was 20 to 27 bushels.

Lest this venture make rainmaking look too easy, scientists are quick to point out seeding cannot *create* rain, but, like a catalyst, can only *release* it. Thus seeding will work only on clouds that contain moisture, plus numerous other conditions conducive to rainfall.

A rainmaker in New York learned this the hard way. He contracted to produce snow at a ski lodge over New Year's for a percentage of the lodge's holiday business. When he arrived, carting expensive equipment all the way to the mountains, there was not a "rain" cloud in sight, so he returned home without a dime for his efforts. That is one reason commercial rainmakers usually are paid a straight fee for their actual seeding work and not for their success. But naturally if a rainmaker wants to stay in business, he does his best to bring the rain.

Although researchers have known for three decades that seeding clouds could produce rain, they only recently discovered it can work additional miracles. "Overseeding," weathermen believe, can retard formation of rain and dissolve clouds. This is important for farmers, especially fruit farmers, whose crops require less moisture. Drought, of course, is by far the greatest enemy of farmers. But too much rain also takes a terrific toll, accounting each year for 14 percent of the nation's corn loss and 25 percent of soybeans and cotton loss.

Hail, which causes millions of dollars worth of damage to peaches, barley and beans—to name a few crops—may also be wiped out by proper cloud seeding. Swiss scientists have proved it possible. And some pioneering Americans have put theory to practice. In Oregon, for example, the Jackson County Fruit Growers' League, began paying out $10,000 a year in 1947 to a couple of ex-World War II pilots who claimed they could prevent disastrous hail storms. The results? Hail damage only once in five years, and that was when the planes were grounded for repairs.

What about tornadoes and windstorms that rob the country, mostly farmers, of around $70 million each year? Scientists admit tornadoes are extremely puzzling. "We need a lot more basic research before we tackle tornadoes," says Dr. Byers. It will probably take a half century more to conquer tornadoes, squalls and hurricanes, according to a random sample survey of members of the American Meteorology Society.

Nevertheless, an American research team, seeding clouds over the Gulf of Mexico, may have unwittingly turned a hurricane against Georgia shores a few years back. At least some Georgians thought so. They threatened a $2 million damage suit which failed to come to trial because the Army, involved in the seeding experiment, quickly classified the information.

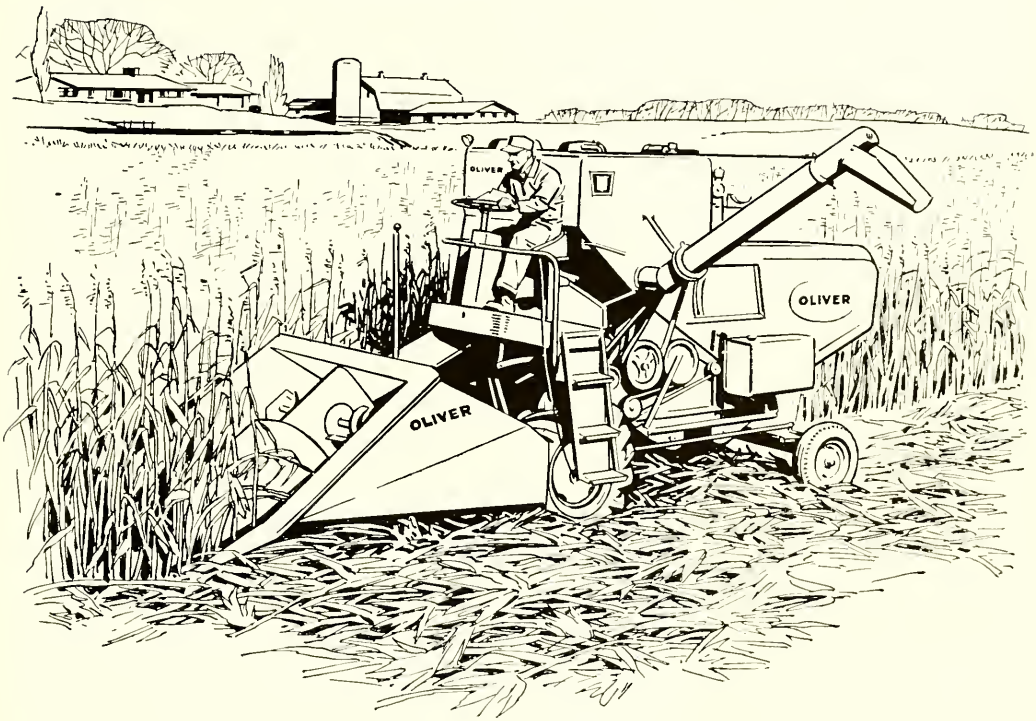
While many technicalities of weather control are yet to be worked out, so are many legal problems. Even man-made weather won't please everyone. Questions such as these will have to be answered: Who owns the atmosphere? Who should be allowed to modify weather? What if a farmer wants rain for alfalfa when such rain would ruin a neighbor's cherry crop?

Legal squabbles have already developed, giving a sample of problems to come. The state of Kansas got an injunction against a commercial rainmaker preparing to water farmers' fields during State Fair Week. California date farmers went to court, claiming their date crop requiring arid conditions was ruined by rainmakers trying to end a drought nearby. Farmers of Jackson County, Oregon, were convinced seeding that prevented hail also prevented needed rain and got up a referendum to outlaw such activities. It failed by only 50 votes.

Obviously, a federal agency will have to be set up to regulate weather control, believe scientists. In 1951, Congress considered creating a Weather Control Commission with jurisdiction over research, military and civilian application of weather control. The suggestion had little support, simply because it was premature according to experts. But they believe it will become a reality as soon as technical advances make it necessary.

A farmer's weather outlook today may be gloomy, but at least he can console himself that, contrary to Mark Twain's old saying, somebody—the meteorologist— is doing something about it. And it's only a matter of time until we'll be able to have sunshine and rain when and where we want it.

The Combine that Corn Built



Corn dictated the design of this combine, the proportions of its components, the ruggedness of its build. Because the "king of crops"—bulkiest and toughest of all—overburdens the traditional grain machine, Oliver recognized the need for totally new construction standards.

So, Battle Creek engineers gave the Oliver 25 a solid, balanced stance on a husky frame...put in reserve engine power...made threshing, separating and cleaning units oversize...provided quick, easy interchangeability of grain and corn headers. Here's a perfect blend of wheatland and corn-belt harvester advancements—the practical, all-season, all-purpose combine for any farm of any size.

Harvesters of international fame have come from Oliver factories since 1848: the Vibrator, the Red River Special and the only mass-produced combine that actually "threshes" corn—the Model 40. Your neighborhood Oliver dealer is the source of a full line of equipment to make farming more profitable and pleasant. His counsel is at your call. Also, consult him when equipment and shop facilities are needed for educational projects.

OLIVER CORPORATION, CHICAGO 6, ILLINOIS.

OLIVER OLIVER

Production Testing

(Continued from Page 25)

productiveness of the animal itself. That has been true of dairy production testing work for many years. The job is to find which particular bulls and cows are doing the best job by measuring or "testing" the offspring of those bulls and cows.

There are many advantages of a program like the AHIR. The greatest amount of progress can only be made after several years' participation; however, because beef cattle improvement is necessarily slow, especially compared to swine and poultry. From date of breeding to market age in beef cattle represents a wait of about two years.

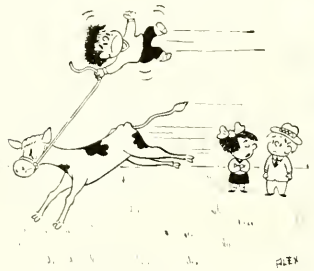
The information obtained in AHIR becomes a permanent part of the herd's file, as much so as the registration record certifies that each animal is purebred. By comparing scores of the offspring of various herd bulls and brood cows, breeders can get a clear picture of which ones are doing the best job. After several years, the figures also will reveal which cows have produced regularly, and also how well they have produced. This sort of information will be increasingly important to buyers in the future.

Production testing is still being improved. The Angus Association, for example, is currently working on a portion to be added later which will cover carcass evaluation. In this part of the program, the offspring of herd bulls will be "tested" or measured for their ability to produce high value carcasses.

Many breed associations have been working on some kind of production testing program. In addition, several state colleges offer their services to cattlemen who wish to improve their herds.

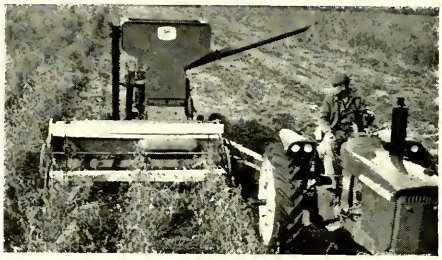
As a progressive young cattleman, you should be ready to take advantage of production testing. Getting started early can mean better cattle—and bigger profits.

The author is Executive Assistant of the American Angus Association.

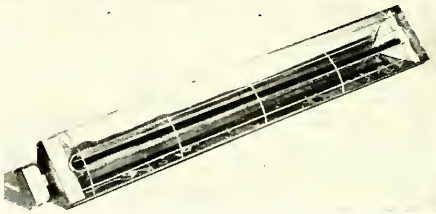


"You city folks! That's what we call 'Training to Lead'."

something new

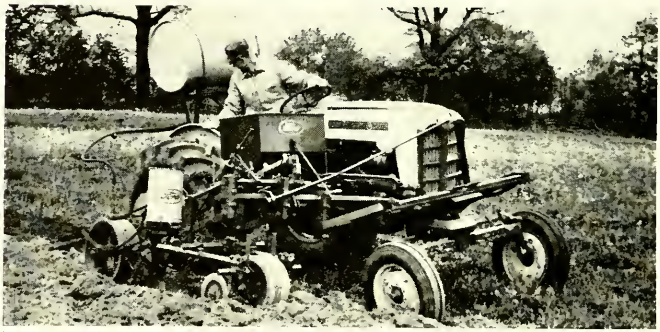


Pull type combine handles three rows of beans, nine feet of grain, or two rows of corn. By John Deere



New aluminized frame space heater for barns, shops, garages. Vycor Brand.

New pail rack lets you pour with ease from five-gallon can. By Hub States.



Planting while plowing can cut corn growing costs as much as $8 an acre. Plows, plants, fertilizes, and sprays in one operation. By Ford Tractor.

Four-wheel drive Scout is built for use both on and off paved roads. The steel top and doors are removable. Windshield folds down. International Harvester.

Mr. L. L. Lichtenberger, manager of Cannon Foods' farm operation, examines part of the tremendous crop of high-quality peppers grown with Armour Vertagreen. The first picking of Cannon Foods' 150 acres of peppers yielded 3212 baskets of peppers, 94% of which graded U.S. #1!

World's largest pepper grower boosts income to $196 per acre on first picking with Armour Vertagreen®

Cannon Foods of Bridgeville, Delaware, largest single growers and processors of peppers in the world, have used Armour Fertilizers for 50 years. This year, using Vertagreen 6-12-12 on their own Cannon Yield-Mor Pepper Plants at the rate of 1500 lb. per acre, Cannon Foods harvested their all-time record crop. The first picking yielded 3.75 tons of peppers per acre, of which 94% graded U.S. #1 and 6% graded U.S. #2; there were no culls. The value per acre was $196.60, and the total value of the first picking was $1513.85. Spectacular evidence from yet another forward-looking farm operation that "it isn't how little a fertilizer costs, but how much it does that counts!"

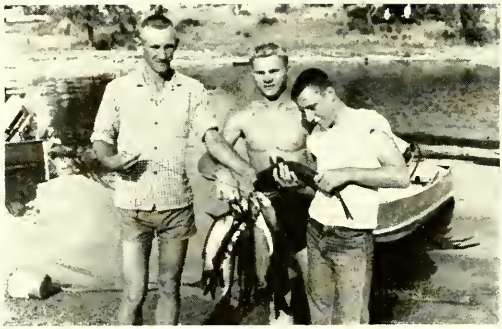
Cannon Foods' full-scale scientific research program, begun over half a century ago, has shown many times by actual tests that Armour Vertagreen is the best plant food on the market. Such a systematic program of experimentation has also placed Cannon Foods in the forefront of their field. Among many significant contributions, Cannon Foods have developed the well-known HPC strain of California Wonder Pepper Seed, one of the world's finest.

Cannon Research has also done much to produce new varieties of peppers with large, thick-walled fruit on plants with a high yield potential. And their fertilizer? Armour Vertagreen, of course!

For higher yields... better quality... more profits, do as top growers like those at Cannon Foods do: use Armour Vertagreen, the complete, premium plant food that's ***worth more because it does more!***

There's An Armour Fertilizer For Every Growing Need

ARMOUR AGRICULTURAL CHEMICAL COMPANY



This was the group that caught the most fish. The lake is full of whoppers like the ones they are holding.

Running trotlines was a lot of fun. This group is getting ready to go see what they have on their hooks.

GO CAMPING

By B. F. Harbour

Here is how one chapter does it. For them it is four fun-filled days of fishing and frolicking.

MORE fun than a "barrel of monkeys" is the way Rogers, Texas, Future Farmers describe their annual fishing trip. Swimming, skiing, fishing, dominoes, and even that dirty word—K. P.—make the event a big success.

A youth camp on Granite Shoals Lake near Marble Falls, Texas, is the place for their four fun-filled days. Chapter members start planning for the trip early in the school year. Right after school is out in June, they load their gear and board a school bus to head for the lake.

The first two years, chapter members brought the food from home. But last year, the Chapter voted a small fee for each member so food could be bought. The Chapter raised the chickens for the two barbecues, and bacon and ham came from chapter hogs.

Head cook last year was Mrs. Jim Lynch, the school cafeteria manager. She had plenty of help from the chapter members in preparing the food.

The big lake is the main attraction. Chapter members brought three boats and several motors to the camp last year. The boats were used to pull water skiers, for fishing, and for going after supplies. All but three chapter members learned to ski last year.

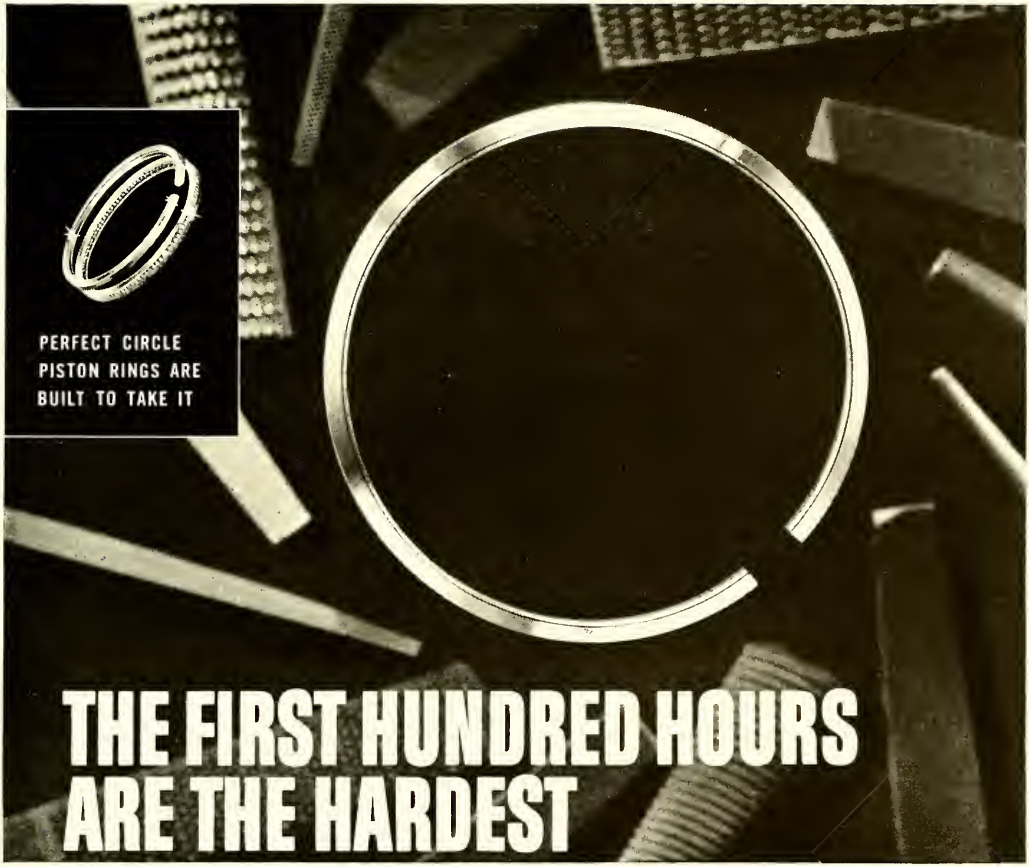
The days at camp begin about 4:00 a.m. when the trotline crews run out to check their lines. After breakfast, members scatter until about 10, when skiing and swimming time begins. Afternoons are devoted to fishing, boating, games, and just plain loafing. Supper is served about eight at night.

The trip offers a good opportunity for fun and fellowship with the ag teacher and other leading citizens of Rogers who make the trip. J. H. Merka, advisor, takes a lot of kidding about his skiing—the biggest boat is used to pull his 250 pounds of manpower. Pete Smith, local banker, was skiing instructor last year, and he had as much fun as the boys.

After lunch on the fourth day, they break camp. Everybody packs up and loads the bus with personal belongings and FFA supplies and equipment. The mess hall, bunk houses, and grounds are thoroughly cleaned for a final inspection.

Then it is good-by until next summer. It is an event the members will always treasure. At the close last year, one member said to Advisor Merka, "Thank you, Mr. Merka, for the best fishing trip of my life."

Daniel Lesikar coming in for a perfect ski landing. This was one of the favorite sports during the camp.



THE FIRST HUNDRED HOURS ARE THE HARDEST

In any new or rebuilt engine there are many areas where moving metal surfaces must adjust to each other. Of all these areas one of the most important is the bearing surface between piston rings and cylinder wall. To assure rapid mating, and protect against "borderline lubrication," Perfect Circle compression rings are either chrome plated or coated with Ferrox.

Where Ferrox is required the coating acts as a polishing agent — much like jeweler's rouge — smoothing away surface irregularities, and protecting against scuffing. Only Perfect Circle offers genuine Ferrox protection.

No matter how hard the wear, from first to last, Perfect Circle rings are built to take it. Use Perfect Circles every time—preferred for performance.

PERFECT CIRCLE

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HAGERSTOWN, INDIANA • DON MILLS, ONTARIO, CANADA

The Farm . . .

Springboard to the White House

Many of our Presidents learned to accept trials and tribulations from life on the family farm. From there, they rose to the highest office our nation offers.

By Kelvin W. Coventry

THERE WAS an inventive gleam in the eyes of a small, red-cheeked Iowa farm boy as he knelt over a jumble of boards, a cross-cut saw, and the wheels from an old buggy.

"It won't work," warned his cousin, a lad of his own age.

"It will work," the little farm engineer decided. "I can make a mowing machine with a real blade that will move back and forth."

It was no idle boast. The odd parts did become a mowing machine. But would it work?

A harness was made and a calf was used as motive power. But the calf was scared. It suddenly bolted and the entire invention wrapped itself around the trunk of an old apple tree. That was the end of the mowing machine, but not of the inventive genius of the farm boy. He became a world famous engineer, a millionaire, and our 31st President. He was Herbert Hoover.

Orphaned at an early age, "Bert" Hoover went to live with Uncle Allan Hoover and Aunt Millie on their farm near West Branch, Iowa. The ruddy complexioned lad had countless chores to do.

"I planted corn, hoed gardens, learned to milk, sawed wood, cut thistles, and cleaned the barn," Mr. Hoover later recalled. He also walked a mile-and-a-half to school each day.

Life on the farm had its pleasures for young Hoover—and its dangers. This esteemed American still bears the scars he got as the result of one adventure with a screech owl.

Once he found the nest of an owl and decided to wait until the eggs hatched in order to have the offspring as pets. After waiting a suitable length of time, he went back to inspect the nest. He climbed up to get the owlets. The mother owl got hold of young Bert and left her imprint on his scalp.

You can still see the two-room cottage in West Branch where Herbert Hoover was born. A few paces separate front and back doors.

Hoover wasn't the only President who used the farm as a springboard to the White House. In the little Ohio River town of Point Pleasant, a white frame cottage still stands on a hill overlooking the sweep of the river. This was the birthplace of Ulysses S. Grant on April 27, 1822.

Seven, eight, nine—the hand of fate often tolled off the count over this square-jawed, fighting farm boy. He was often down as he met the hurdles of life, but never out.

Take the time the circus came to Point Pleasant. A boy of 12, with a jut-chin, raven hair, and bulldog determination cheered along with the rest of the crowd as the gaudy parade of lively red and gold creations strutted to the circus grounds. Then he saw it —a white mule.

"A dollar to anyone who rides the mule around the ring," shouted a clown with a mile-wide grin.

Young Grant was determined to win that dollar. He sized up the situation by watching many boys and young men being bucked from the back of the mule. Then he offered to try his own skill.

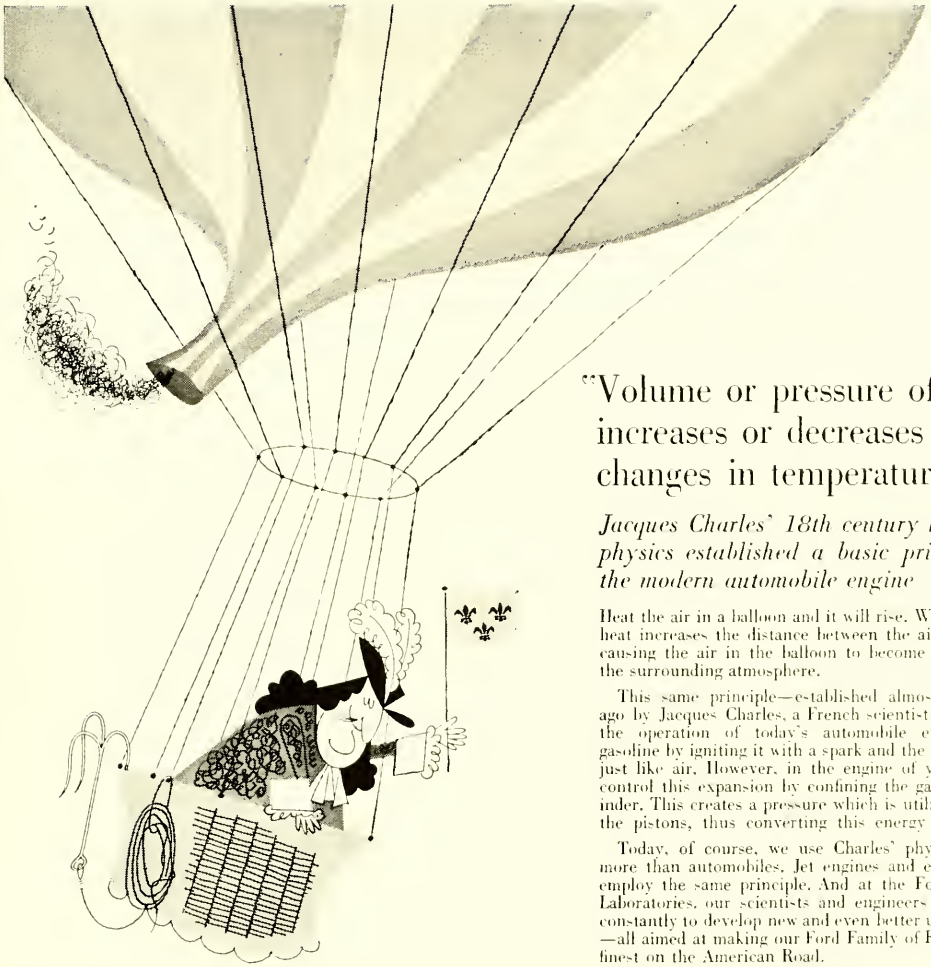
He leaped to the back of the animal and rode almost around the ring before the mule became all fire and fury, lowered its head and kicked up its heels. Grant sailed off like a sack of wet cement. The crowd roared.

"Had enough?" the clown asked, pulling the red-faced boy to his feet.

"Give me another chance," urged the boy. The crowd applauded.

This time Grant did a strange thing. He mounted the mule and faced the rear, wrapping his legs around the animal's body. He held on by the tail. The mule kicked and bucked, but could not pitch him off. He won the dollar.

(Continued on Page 46)



"Volume or pressure of a gas increases or decreases with changes in temperature"

Jacques Charles' 18th century law of physics established a basic principle of the modern automobile engine

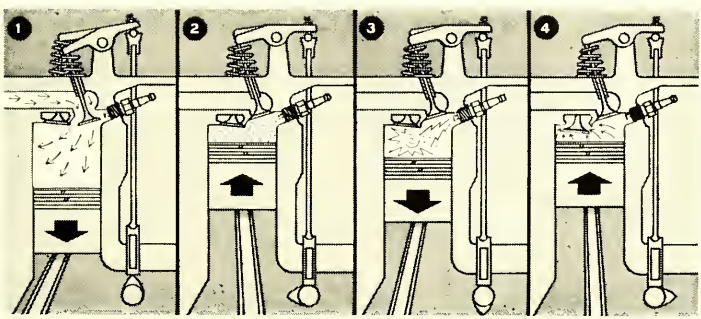
Heat the air in a balloon and it will rise. Why? Because heat increases the distance between the air molecules, causing the air in the balloon to become lighter than the surrounding atmosphere.

This same principle—established almost 300 years ago by Jacques Charles, a French scientist—is basic to the operation of today's automobile engine. Heat gasoline by igniting it with a spark and the fuel expands just like air. However, in the engine of your car, we control this expansion by confining the gas to the cylinder. This creates a pressure which is utilized to drive the pistons, thus converting this energy into power.

Today, of course, we use Charles' physical law in more than automobiles. Jet engines and even missiles employ the same principle. And at the Ford Research Laboratories, our scientists and engineers are working constantly to develop new and even better uses of power —all aimed at making our Ford Family of Fine Cars the finest on the American Road.

Ford Motor Company

The American Road, Dearborn, Michigan



How gas is converted to power in the Ford Family of Fine Cars

1. A combustible air-fuel mixture from the carburetor is forced into the cylinder. **2.** This air-fuel charge is compressed by the upward stroke of the piston. Near the end of the stroke, ignition occurs when a spark leaps between the spark-plug electrodes. **3.** The air-fuel mixture explodes, furnishing the energy which pushes down the piston. The piston turns the crankshaft and flywheel, developing the power which ultimately reaches the wheels. **4.** On the exhaust stroke, the used or spent combustion gases are forced by the piston out of the cylinder through the open exhaust valve.

FORD FAMILY OF FINE CARS • FORD • FALCON • THUNDERBIRD • COMET • MERCURY • LINCOLN CONTINENTAL

Springboard to the White House *(continued)*

Unusual? Not for a boy born close to the soil. His boyhood was spent on his father's farm. As soon as he was old enough to hold a plow he did as much work as a man.

Grant, whose character was molded by life on the farm, was a born fighter. He beat Robert E. Lee and saved the Union. He rode into the White House on the crest of a great wave of popularity. But few of us know of his greatest battle—against cancer.

Ten miles north of Saratoga Springs, New York, at the summit of Mount McGregor, stands the simple little structure to which Grant came in June of 1885. He was racing death to finish his *Memoirs*.

His family was destitute. He must finish the book so his family would be provided for. He completed the book just a week before his death on July 23, 1885. It earned his family a fabulous $500,000.

Calvin Coolidge was also born into a farm family—in craggy Vermont. His grandfather often said, "The only real, respectable way to get a living is from tilling the soil."

When Grandfather Coolidge died, what do you suppose he left his nephew? The foxy old man left him 40 acres of land. The will was so worded that no creditor could ever get it. It couldn't be sold. It could only be cultivated.

In the old Coolidge Homestead, still standing at Plymouth Notch, population 12, where lush farms still hide in the valleys among the towering mountains, occurred one of the most unusual inauguration ceremonies in all history.

President Harding died August 2, 1923. Vice President Calvin Coolidge was vacationing at the old Plymouth homestead at the time. He got the news at 2 A.M., and an unusual situation took place.

It is an unwritten law that the country shall not be without a President a moment longer than is necessary. No time to go to Washington! No time to reach the Chief Justice! All that was required was a Justice of the Peace.

"Silent Cal's" father filled the bill. He was an official Justice of the Peace and administered the oath to his son. John Coolidge shook his son's hand and the inauguration was over.

Perhaps Calvin Coolidge never intended to, but he did describe in these words the good days of Plymouth when he was young.

"It would be hard to imagine better surroundings for the development of a boy than those which I had . . . country life does not always have breadth, but it has depth . . . if I had power to order my life anew I would not care to change that period of it."

We hear much of Abraham Lincoln's trek to fame, using the poverty of the frontier as a stepping-stone to success. But James Garfield trod pathways that were just as difficult to blaze.

Just think of it! Garfield was the last of the "log cabin" presidents; orphaned while still an infant. It was a struggle just to keep alive and to keep the family together.

Young Jim farmed the land. He chopped wood. He hoed. He carried butter to the store for sale. So did all the young boys of his own age. But there was something different about Garfield. He had a burning desire for knowledge.

Lincoln the Farmer! He needed all the strength developed by his farm work for the terrible burdens he was to shoulder when slavery was the issue.

In a small country village in Ohio, Garfield attended obscure Geauga Academy. He was too poor to pay board in the village, so he rented a room in an old frame building and did his own cooking and housekeeping.

The result? During one period of six months, Garfield became president of a college, state senator from Ohio, a major-general of the Army, and representative to the national Congress. It is said that no other American achieved such success within a period so brief and to a man so young.

A replica of Garfield's log cabin birthplace still stands at Mentor, Ohio. Beside it rises the luxurious home he lived in during his later years. Seen together, they shape up as one of the most graphic pictures of the meaning of opportunity in America.

Who can ever forget Jefferson's beloved Monticello, the red and white mansion he built for himself on a Virginia hilltop? This awkard, lanky, freckle-faced farmer's son invented a plow, introduced rotation of crops and terraced farming. He was always a farmer at heart.

George Washington used his beloved Mount Vernon, with its well-tended and productive farms, as a springboard to the presidency. Benjamin Harrison, Harry Truman, and Dwight Eisenhower were all farm boys.

What's the moral? Can we imagine that all we have to do is to go live on a farm and we automatically, through hard work, become "exhibit A" in the White House? That's not the case.

These men all proved that it is still possible for young men of ability, energy, and determined purpose to win places of usefulness and honor. The farm is still a good school, but the principal conditions for success are still to be found in the man.

Why not spread your wings and try out your own personal springboard right now? ◆◆◆

Ulysses S. Grant was born in this small frame cottage at Point Pleasant, Iowa in 1822. As soon as he could hold a plow, he worked as much as a man.

SMITH DOUGLASS

NUMBER

OF A SERIES

There are many kinds of Nitrogen

SMITH-DOUGLASS

HERE

→ **YOU**

ARE YOU UP TO DATE ON FERTILIZER ?

Check yourself on the following question. Don't be surprised if you miss. Fertilizers are a rapidly changing part of our agricultural economy.

We recently said that all fertilizers of the same analysis were not alike, even though they would pass the state test.

Why aren't they the same? They are guaranteed by state law, aren't they?

Yes, the law sets up certain minimums. Most fertilizers, including Smith-Douglass meet these minimums. But the law does not usually specify any specific kind of nitrogen. There are many kinds of nitrogen, but Smith-Douglass PELLEFORM contains primarily ammonium nitrogen. Ammonium nitrogen means less leaching. Recent research has shown that ammonium nitrogen in a mixed fertilizer definitely increases the efficiency and uptake of phosphate much better than nitrate nitrogen.

You can tell it's PELLEFORM by the uniform pellets and the Smith-Douglass trademark on the bag.

You can also tell it's Smith-Douglass by the extra bushels at harvest time.

S-D FUTURE FARMER OF THE MONTH

CLYDE GEOFFREY SWENSON

Forest Lake Chapter, Scandia, Minn.

Clyde is attending the University of Minnesota, with the assistance of a Smith-Douglass scholarship. He served as president of his Junior Class, and plans to enter some phase of agricultural research upon graduation from college.

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Smith-Douglass Co., Inc., manufactures and distributes fertilizers and chemicals for agricultural and industrial use, including sulphuric acid, anhydrous ammonia, phosphoric acid, nitrogenous tankage, phosphate rock, superphosphate, farm fertilizers, lawn and garden fertilizers, feed phosphorus supplements . . . dicalcium phosphate and defluorinated phosphate . . . potassium silicofluoride and potassium fluoborate.

Daydreaming with a Plow

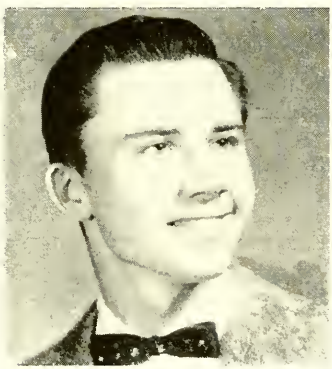
By Richard D. Haney

I'LL BE a son-of-a-gun. There goes that plow again. The fourteenth time that lousy thing has come unhitched. Wouldn't be so bad if it was easy to hook back, but on these steep hillsides the tractor rolls if you don't get the brakes set in time.

I wish this gearshift would work better. If it wasn't so hard to put in gear I wouldn't have half the trouble I'm having.

Sometimes I wish I didn't live on a farm. Nothing but hardships, but I guess some people are worse off than me. Come to think of it farming isn't so bad. Like, well. . . .

Richard Haney, author of this article, is an FFA member from Elizabethtown, Illinois, and is a State FFA Officer.



In the city the people can't see the beautiful hills with their collection of different shades of trees. They can't see the livestock grazing the lush fields of alfalfa, or the joy of watching a newborn calf take the first step.

Take a look at the way the plow is turning the sod over. I see a joy there. I don't believe I could easily explain to a person how I feel when I see a plow slipping through the sod.

I see strength, tenderness, a new life, and a better way of living. People would probably think that I'm talking through my hat. But just look at it.

Tenderness . . . I pity the folks that have never seen the tenderness of plowing a field. Most people would probably say it is crazy to say such a thing, but I can see it.

A city person would think that a plow would leave the field looking like a tornado had hit it. But not the fields I have plowed and the field I am plowing now.

The plow leaves the soil laying in even, overlapping rows as if God's fingers placed it there. Actually, it really is placed there. The plow just seems to lay it over so softly—as if it were preparing a bed.

You find tenderness not only in the plow. Tenderness is all over the farm. Everywhere you look on a farm you see tenderness.

That cow over on the hillside licking its newborn calf. The ducks swimming on the pond. The birds soaring above my head. The white, fluffy clouds floating across the light blue sky. The baby chickens hopping along behind the old hen. The lambs jumping around as if in a game of tag. The wind gently blowing the wheat crop. The smell of the fresh air.

The new life I see in plowing comes from the growth of the corn. Not only in this field but in all the cornfields across America. The farmer has it lucky to see where the new life really comes from.

Like when he plants corn he watches it push through the ground and then he begins to nurse it as it grows. Then he waits, and works, and watches.

Rains, drought, insects, hail, wind, lack of food nutrients in the soil, livestock getting in the field.

All of these things can affect the farmer and the crop he is raising. And all he can do is work and wait until the day he can . . .

Wish that tractor didn't make the same noise over and over. It makes me feel sleepy.

Until the day he can harvest. Then he can sell it to the mills, who in return will make products for people living everywhere.

Or he can feed it to some of his livestock and raise meat. Anyway you look at it, life goes on.

What was it the preacher said once? All things come from the soil—no, all things come from the earth and to the earth they shall return. I really believe that. Everyone should believe it . . . it's the truth.

The farmer keeps the world alive and he keeps the world alive with things from the earth—partly direct and partly indirect.

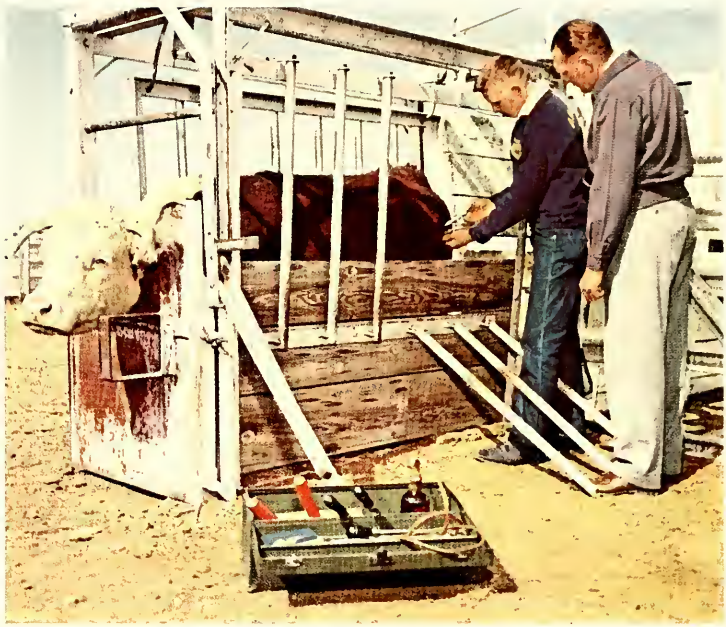
The new life I see in the plow leads to a better way of living. The people are beginning to realize how important farming is and they realize the farmer has to be a smart guy to make a living.

Only five percent of the working population are farmers. And one of America's farmers must produce enough food products to feed 23 other Americans.

That's why I'm going to the University and study agriculture. I believe the future of farming is in having an education to operate a good farm. And I plan to have the best. Pipeline milking, self-propelled implements, automatic feeding system. The whole works. Lousy plow—unhooked again. That makes over 20 times this morning. I hope things go better this afternoon.

VACCINATION

Miracle or Menace



The services and supervision of a licensed veterinarian are recommended for getting the most value out of a vaccination program for your livestock.

VACCINATION is a vital tool in the efficient, economical production of livestock, but it has its limits. To give the protection expected, you have to use vaccines in the right way at the right time.

Take for example, vaccinating against hog cholera. If the pigs aren't in good condition, the vaccination probably won't be successful, or only a weak immunity will result.

Usually your veterinarian will want to check the herd carefully before he vaccinates against cholera. He checks for signs of other diseases and for a heavy parasitic infestation, because that will interfere with vaccination results. He also takes into consideration general herd condition, and the conditions in the locality before deciding which type vaccine to use. Not until all these checks are made is he ready to vaccinate.

Length of protection against disease varies. Some vaccines protect immediately, but the results endure for only a short time. Other vaccines build protection slowly, but the protection lasts a long time. So the choice must be made between the two, depending on the problem to be met.

There is another thing you have to consider. Some animals respond better to vaccination than do others. Even litter mates may react differently. Of course, a healthy animal has a better chance to develop good immunity than does a sickly one. Also, how well-fed an animal is can have a direct bearing on how well he builds protection after vaccination. Other factors enter in, too—such as age of the animal, climate, and fatigue.

"Misunderstood" vaccination can be downright dangerous. For example, don't confuse temporary serum vaccination with the lifetime type of vaccination. And, there is the danger of using "good enough" vaccine when a more efficient type—even though it costs more—would save lives. Equally dangerous is using a vaccine at the wrong time, or in improper amounts, or perhaps injected in an incorrect manner in the wrong places.

All these factors add up to the same thing: successful vaccination isn't just a matter of sticking a vaccinating syringe into an animal and letting nature do the rest. There are too many things that may determine whether the result will be a success or failure. A good many livestock producers leave the whole matter up to their veterinarian for that reason.

But vaccination alone is not the magic answer, cautions the American Foundation for Animal Health. It cannot substitute for good management. A poorly-fed animal, kept in unsanitary quarters, will be a poor risk, no matter how well he is vaccinated. In this respect, some farmers are asking vaccines to do more than they were ever intended to do. They are an invaluable tool in profitable livestock production, but are never a substitute for all-round good management.

On the other side of the fence, some farmers aren't using modern vaccination to the extent they could. Again, take the case of hog cholera. Heavy outbreaks of cholera have hit in many areas because farmers let down their guard temporarily. These farmers were lulled into a false sense of security because they had "gotten by" for a few years without cholera vaccination, and no outbreaks occurred. Then cholera struck and caused terrific losses. The only way to stop this, and many other costly diseases, is to keep herds vaccinated against them.

Many farmers are not acquainted with all the diseases against which modern vaccination is effective—cholera, erysipelas, enterotoxemia, blackleg, anthrax, sleeping sickness, rhinotracheitis, brucellosis, leptospirosis, and others. If you don't inform yourself on these diseases, and have your animals vaccinated when the need arises, you are missing a good bet, and missing profits.

In the breeding loft, Jim and Bill admire their Heitzman cock pigeon.

RACING IS FOR THE BIRDS

You can take these Future Farmers seriously when they say something is strictly "for the birds."

THE SPORT of pigeon racing is rapidly becoming a family hobby for thousands of Americans—including many Future Farmers.

Two California enthusiasts are Jim Fitzgerald, Jr., a State Farmer, and his brother Bill, who was recently named the Most Deserving Future Farmer in southern California. They are members of the Brea-Olinda FFA Chapter and of the Chino Valley Racing Pigeon Club.

Their birds have scored many important racing victories in the area. They have flown them as far as 600 airline miles in competition with other clubs.

When their racing pigeons are about three days old, Jim and Bill band them with an American Racing Pigeon Union band which serves as a lifetime registration number. The birds are trained and exercised around the home loft until they are between three and six months old. Then an extensive training program begins.

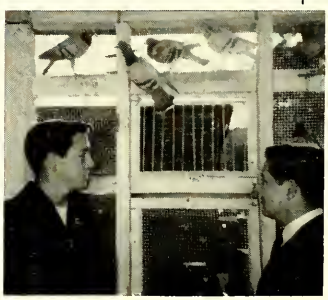
Pigeons are placed in baskets by Jim and Bill and are taken a few miles from the home loft for release. This distance increases during training until they are flying back about 50 miles. After this, they are entered in club races and compete for trophies and diplomas.

Prior to the racing season, Jim and Bill secure from an approved national surveyor the distances from the release points to the home loft. On shipping day, a numbered rubber countermark or band is placed on each bird at club headquarters and the numbers entered after each bird on the entry sheet.

At racing time all birds are transported to their destination and released at the same time. When the bird arrives at the home loft, Jim and Bill remove the countermark from the bird's leg and place it in a timing device. This clock prints the bird's time of arrival on a roll of paper and from this, club officials can compute the speed in yards per minute for each owner and determine the winners.

It is a hobby that is gaining many new members each year. The American Racing Pigeon Union recently celebrated its fiftieth anniversary and has clubs in most major cities of the U. S. You can get more information by writing clubs in your area.

Jim and Bill inspecting the entrance to one of their flying lofts. Birds can enter the house but can't escape.



A sign at the gate, and this picture in the home says . . .

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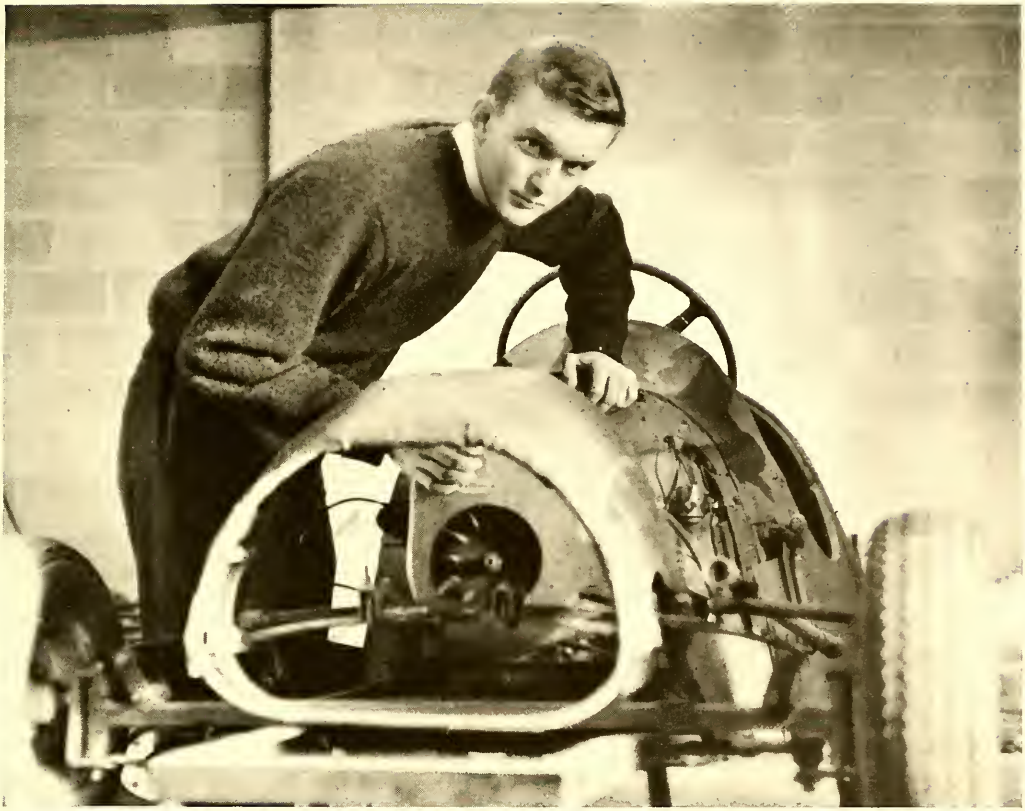

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By Henry H. Graham

UNTOLD THOUSANDS of boys grow up without ever really knowing their fathers. Although they sleep under the same roof and eat at the same table for years, the two are not actually well acquainted. It is regrettable for both miss out on a lot.

How about you? Are you and your dad good friends and on good terms? Do you do things together? Do you take Dad into your confidence when something troubles you? Do you talk with him about the farm and its problems? If you don't, you are both being cheated.

Dad was once a boy, probably very much like you. He had many of the dreams, aspirations, doubts, and perplexities that you do. Perhaps his father helped him through his difficulties. All males, regardless of age, are made alike. To a large extent they have the same emotions, desires and ambitions.

Your dad is a smart fellow. Years of living have taught him much, including how to differentiate between the good and the bad, the true and the false. Shrewdness and knowledge come with time. Observation and profiting from his mistakes, and those of others, have helped him to keep his life running on an even keel. This wisdom would be of great value to you.

The chances are, however, that Dad is just a bit hesitant to offer you much advice. He is probably waiting to be asked. If you get into trouble of some kind, he will always go to bat for you and try to set you straight in your thinking, so the same error will not occur again. He probably gives you tips and suggestions from time to time. But the father-son relationship should go much deeper than this. You and your dad should be real pals having few, if any, secrets from each other.

Why not sit down and talk confidentially with Dad once or twice a week at least? Just man to man. You will find him warm and responsive. He will thoroughly appreciate such talks for he is very fond of you. He wants you to live decently, reach your goals and be happy. Very likely he will tell you about his own boyhood and how he faced and overcame obstacles similar to yours. You probably have problems because nearly all boys do. Dad will glory in helping you solve them.

Are you one of those boys who regard Dad as something of an old fuddy-duddy just because his ideas do not always coincide with yours? Many lads are like that. They are inclined to overestimate the trivial and underestimate the important. To a large extent this is due to their immaturity—the fact that they have lived a much shorter time than adults and thus lack the experience that comes with the years. It is nothing against them. It is normal and natural.

You will be wise to have many pals of your own age and spend the bulk of your free time with them. This is the way it should be. But once in awhile why not ask Dad to participate in your pleasures? Ask him to go fishing or hunting with you. You will find him a wonderfully fine companion and how he will enjoy accompanying you! Mixing with young people helps to keep adults young. Your dad probably has many trying days on the farm. Sometimes he gets blue and discouraged. Sometimes he comes in at night looking careworn and tired. A little recreation with you, even if it is nothing more than a simple game of checkers or dominoes, will do a lot to cheer him up. It will get his mind off his worries.

Never fear that Dad will monopolize your time or that of your chums. He is far too smart for that, knowing as he does that you will want to make most of your outings and other outdoor activities "all youth" affairs. But occasionally he would thoroughly enjoy joining you, whether just the two of you participate or there are many.

Do you gripe and complain when Dad refuses to grant one of your requests? You shouldn't. He would probably rather say yes than no. But you may be sure that when he declines your requests he has a perfectly good reason. Accept his decisions gracefully without grousing. In the main he is pretty good to you, isn't he?

When Dad says he cannot afford to buy you this or that he really means it. Maybe farm prices haven't been too good lately. Perhaps he has important household obligations to meet. You may be sure that when he sees his way clear he will grant your request if he considers it wise. Chances are he will even sacrifice his own desires in order to gratify yours. Fathers are like that where their children are concerned. They put their family's wishes first.

In all phases of life there are many angles to be considered. You will understand all this yourself some day and realize your dad exercised wisdom and good judgment most of the time. Teasing Dad for things you want will make him feel bad.

Your dad thinks more of his family than of any other group of people. The members of the family are closest to his heart. He wants to provide well for them and give them everything he can afford. He willingly accepts that obligation. But few dads are made of money. Most of the time they have to be careful of their expenditures for costs are astronomically high these days. Luxuries must come after necessities are paid for.

Believe in your dad and accept his decisions in the knowledge that they are just and fair. Use judgment and common sense. And get thoroughly acquainted with him. You will find him a fellow well worth knowing intimately. Dad isn't just the man who pays the bills, often comes in tired and gets out of sorts at times. He is much more than that. He is a swell guy who should be thoroughly appreciated. He has faults, of course, because everybody does and he is only human; but he is really the salt of the earth. So why not give him all the breaks he so richly deserves? Looking back when you are older you will be glad you did.

◆◆◆

Discoveries in chemistry that help you farm better

Hornflies can worry away more than 20% of a cow's milk production. But now it's the hornflies' turn to worry. This 30-second rubdown with Du Pont "Marlate" methoxychlor keeps hornflies off cows and their milk production up.

The 30-second rubdown that helps keep milk production up

Take a rounded tablespoonful of Du Pont "Marlate" methoxychlor just as it comes from the bag, a dry powder. Rub it in the hair along the cow's back, and hornflies will steer clear of that cow for about three weeks!

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Important as it is to dairymen, methoxychlor is also helpful to fruit and vegetable growers and for home gardeners. Here again, it is not only effective against a wide range of insects, but its residues are low in toxicity to people and animals. Providing an unusual combination of useful properties, methoxychlor is one example of Du Pont discoveries in chemistry that help you farm better.

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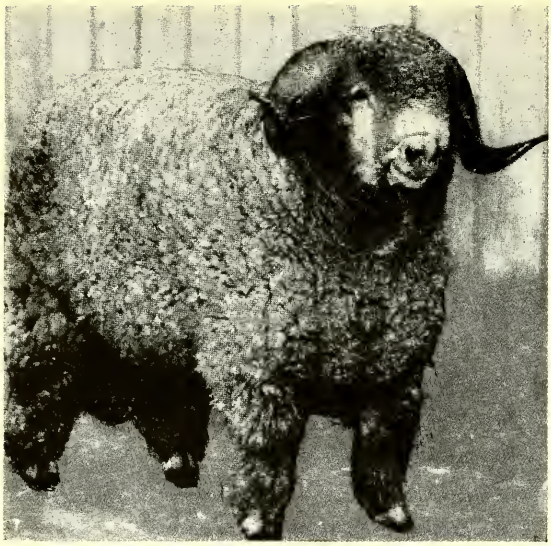

Old Rustler Solves a Mystery

Can a person transmit thoughts to an animal?

Read this entertaining story before you answer.

By B. J. Schmidt

WHEN THEY TALK of the mysteries of outer space, I sometimes wonder if a greater challenge is offered in the study of the forces of the human mind. Of course, being an ordinary sort of boy, I didn't always wonder this. In fact, it was all Old Rustler's fault that I ever began to wonder about it at all! The queer part of this statement is that Old Rustler didn't have a human mind—he was a big old buck lamb!

When I first met Rustler, he was a hungry, baaing wad of black wool perched on top of four wobby legs. He had a twin sister that looked just like him, and when she kept crying we discovered that their mother couldn't produce milk, so we had to bottle feed them. We live on a sheep ranch, so we have a great many "bums," or lambs that have to be fed with a bottle. Some of them had no personality at all, but Old Rustler was quite a card!

It was later that summer my story really began when Rustler was sort of a teen-age sheep with a changing voice and a dawning sense of responsibility. I had to have abdominal surgery that took me from home a week. I recovered slowly but still had a horror of anything touching me. I wanted to go out to renew my friendship with Rustler, but I went with an uneasy feeling. If you've ever had these "bums" rear up and plant their front feet solidly on your stomach, you have a faint idea of why I was scared.

At the first sound of my voice, Old Rustler came trotting up, and I crouched against his expected greeting. Instead, he eased up and turned sideways in front of me and stood there blocking any attempts of the other lambs to play rough. This surprised me as he had been rather rough. He tagged along with me a lot after that, never once pushing me or attempting to jump. He would cross in front of me for protection when another lamb approached.

Before my operation, I had planned to spend a few days with my grandmother in another town. I had looked forward to it until I realized that I was still very weak. When she arrived, she told me all the plans—including a baseball game in which I was to play—and I got mighty scared. If I didn't play, it would make her ashamed of me; if I did, it was likely I would get hurt. She had done it to please me, so I couldn't say "no."

I went out to bid Old Rustler goodbye, then came back in, and I'm afraid the tears showed a little. Just as my mom began to question me, there was a wild commotion outside the back door! Here came Old Rustler charging like an express train, foghorn voice in full volume. Mom opened the door, and in he thundered directly to me! He didn't jump against me, but "talked" very anxiously and coaxingly as I've later heard some of the ewes speak to a lamb that's been lost or frightened.

Plans were hastily changed to send my sister, Kathy, with my grandmother, but until they left, Old Rustler kept himself between me and the car. As soon as the car was out of sight, he went back to his pen and paid attention to me only when I called him. He had never come in like that before, and he never did again. Of course, I had told him all about my problem, but is it possible he understood?

Things went quietly until late summer when a road construction company moved in on the dry creek in front of our house to remove gravel for repairing our road. We were fascinated by the huge dragline operating so near.

Then one day the dragline refused to start. All morning long the line of trucks sat idle. The next day and the next, there were delays of several hours.

Then, in what seemed like a nightmare, we were unexpectedly taken from the schoolroom by two sheriff's deputies and questioned most severely. I seemed to be their prime "suspect," although it took me quite a while to find out what was wrong.

"Did you go near the sand pit?"

"Yes. My sister Kathy and I went over some evenings when work was finished."

"Do you own a bicycle and a pair of tennis shoes?"

"Yes," I answered. "Why?"

"We are doing the questioning, Sonny! I advise you to tell the truth. You put sand in the crankcase of that dragline, didn't you?"

"No, sir, I didn't!"

"No use denying it, because we found your tracks going right up to it."

"I did go to the machine to look at it, but I never got up on it."

"You did get in it to see how it worked, didn't you?"

The more I denied my knowledge of the affair, the more heated became their questions. Then flying down the road came our pickup, and braking to a rather dramatic stop, my mother leaped out to approach the car where the men were questioning me. She asked me if I knew anything about their mystery, and if I had anything to do with it.

Before I could reply, Dad's truck roared into the schoolyard, big rolls of woven wire bouncing high on the back of it! He had been repairing sheep fence when my mother told him of the trouble. I felt considerably better on having such reinforcements, though I

knew it would be a lot easier to hide a guilty secret from the officers than from my parents.

"If you have more to ask, let's go home to do it," suggested my father.

Permission was granted by an uneasy teacher whose class had never been disrupted in such a fashion. Our little two room school is so far out in the country that even the sight of the sheriff's car scared the younger pupils so badly they did not eat or sleep that night. My position was not enviable. I had nothing to hide and because of my awkward position felt eager to solve their problem.

As we entered our driveway we could hear a frantic deep voice baaing loudly. Rustler hurled himself at the fence! We had no sooner stopped and were out of the cars and trucks than he charged to assume his position between me and the danger. He eyed the officers with distaste and lowered his head threateningly if they stepped in my direction. Then he turned his big black muzzle against me and started making comforting noises.

The deputies, who had just suggested that I be taken to the county seat for "questioning" seemed startled. No more was said about my bicycle and tennis shoes, but they asked about others in the community. I felt very sure that none of my friends would be involved, and later I thought it was nice to live in a place where one could be sure of one's neighbors.

As the talk went along, it seemed that the damage to the machine had been great. The damage had been done in an extremely clever way that could be aimless or perfectly planned. They were partly satisfied with my innocence, but someone had done it, and so far I was their best prospect.

Days dragged by and the mischief continued, though my parents scarcely let me out of their sight. People gazed at me as though wondering if I had actually done the damage. One thing puzzling us a great deal was the fact that none of us had heard the dragline engine start in the night. Why? This one item provided new fuel for the fire of suspicion.

Then one night after work, the master mechanic on the construction job asked my dad to come and talk to him. When I got home from school, Dad called me. Old Rustler, who had behaved well since the deputies visit, leaped over the fence and charged after me. I felt silly with him baaing after me, so I asked Mom to call him. He paid not the slightest heed to her call and charged on my trail, calling across the 15 foot deep pit that he would throw himself down it to reach me if I didn't show him the way around. I reluctantly came back to call him. Once with me he took up his defensive position.

The young man whose job it was to clean and oil the machine after work was with the master mechanic. As they walked around talking, Old Rustler began to pace right behind this man. He came closer to him, and all at once lowered that battering ram of a head and began a charge that I was barely able to stop. He seemed very excited, and even though the master mechanic was a stranger, Rustler didn't even glance his way. I coaxed him away and back to his pen, but a wild thought came to my mind.

"Was Old Rustler showing me who had done the mischief?" For an instant it seemed possible, but why would the man who worked on the machine want to harm it? My mom had been watching the behavior of my odd buck lamb,

(Continued on Page 63)

"When do we meet her?"

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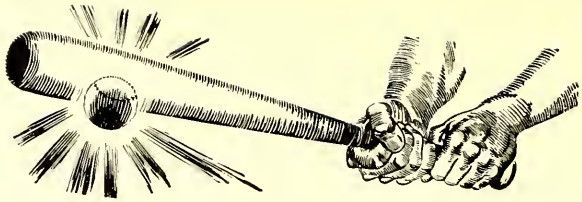
ROOKIE at spring training!



It is a hard job for a young man to break into big-time baseball—but many do. The ones that don't make it say "wait 'til next year."

By Raymond Schuessler

A BASEBALL ROOKIE'S best chance to break into the big leagues, or even gain a foothold in professional baseball, is to catch on fire in spring training. Like an auto production line, these baseball camps work from dawn to dusk, grinding out new ballplayers from the thousands of hopeful rookies who display the necessary talent, reshaping old ones for the season ahead.

It's not always easy to break into a major league lineup. Veterans who have held the job for years fight grimly to hold onto their bread and butter in the only profession they know. But the chance is always there for the hustling rookie who has the ingredients of a star. In few other games is the survival of the fittest so vividly displayed as in a baseball camp. Only the strong and the ambitious survive.

The youngsters want desperately to break in. "We want to know quickly," one said, "if we can get out of the minor league with its constant night games under poor lights, low pay, poor food, and overnight bus rides."

The rookies are grim, frightened, frozen, or cocky. Some are awed by the big stars they have worshipped since grammar school. Some are not! "They put their pants on the same way," grunted one thin-lipped rookie, pounding his shabby mitt. "They all started where we did, didn't they?" Among them may be another shy Lou Gehrig, or a brash Ted Williams.

Every rookie is carefully scanned. Even when he doesn't realize it, his every move and habit is being studied and noted. A "book" is kept on all his strong points and apparent weaknesses. One can run like the wind, but doesn't get a jump on the ball. Another lets his concentration lapse on defense. One outfielder can catch like a pelican, but throws like one too. And so it goes, the unsentimental appraisal of baseball flesh each spring.

One of the spring training camps during a workout. They usually get quite an audience for their games.

It is all quite necessary. Do you know what it costs to make one major league ball player? The entire farm system of one ball club, which may include half a dozen teams, is considered highly productive if it produces one man for the major leagues each season. Most of the farm systems send up a man every two years. This means that it costs around $500,000 to produce one major league ballplayer.

With the declining talent, because most youngsters are not taking up baseball as they used to, new rookies are well treated in camp. Often he is a bonus baby who got $5,000 to $50,000 for his signature, which he invested in a new convertible. Each morning he will find his shoes shined, his socks washed, and his uniform cleaned.

Besides the minor league rookies and bonus kids, the camps are invaded by some 20,000 uninvited amateurs who hope to qualify. Out of the cities, where they worked all winter to save a poke, down from the hills and farms, they come to show their ability. Some carry the legendary paper suitcase and a dream nourished since they were old enough to save bubble gum photos of their heroes.

As a source of supply, these kids furnish baseball with about 25 percent of its farm club players. But for each one that is offered a contract, some 50 drag home their shattered dreams, muttering against curve balls, tricky winds, sunspots, lousy pebbles, and blind umpires.

But no rookie really goes unnoticed. Coaches and managers rustle through each crop with a keen eye, hoping to find another Feller or Mantle. "We spend more time with the rookies than with the regulars," one coach said, "because we know that some stars in their youth often have been turned down cold by clubs. And this is why a rookie should never give up even if he doesn't make it the first year or two."

A typical spring day begins with a lecture and bulletin board diagrams at 8:30. "No ballplayer can move up the ladder," said Al Dark at the Philly camp in Clearwater, "unless he is thoroughly grounded in fundamentals such as running bases, where to throw the ball on certain plays, cut-off plays, and so on. The wise rookie has practiced these things a thousand times so he can do them without thinking."

Each day begins and ends with a run around the park. Pitchers will sometimes jog a couple more times during the day. "Here's another way a

rookie can improve his chances," said Dark. "Do enough running before coming to camp so he'll have good wind and strong leg muscles to start with. How can anyone make a good showing when they get sore and tired the first few days?"

Infielders are grouped into "pepper games" with the batter hitting short sharp grounders to improve winter-weary reflexes. Scouts keep an eager eye out during all these proceedings for the hustling ballplayer, the player who digs after each ball and shows a natural and eager spirit for the very act of chasing a baseball. Does he get a good start? Does he throw from the proper position on each pickup? Is he afraid of the ball?

Meanwhile outfielders are shagging fly balls and mingling with the regulars. Balls are hit to all sides of them to spot their weaknesses in moving in or out, or to the sides. No one throws the ball too hard the first week. But soon they will have to rifle the ball to various bases, keeping it low for cutoff plays. Veterans give advice: "Start with the crack of the bat," explained Harry Anderson, "and be ready to move with every pitch. A moment's relaxation can mean a lost step and a lost ballgame."

It is the all-important batting practice that takes up the greater part of the day. Rookie pitcher against rookie batter battle each other to make a greater showing. "Take it easy," growl the coaches to the pitchers. Very few solid hits are made in the early days. "Good wrist hitter," one coach comments on a rookie's batting form, "but he backs away from the inside pitch." The show is stopped while the defect is explained. The rookie begins to hit inside pitches for 10 minutes.

"Young ballplayers should learn early to hit balls pitched to the four corners," said Dark. "What good is it if you can murder all balls above the waist? Once the pitchers find out you are weak on low balls, that's all they will feed you."

This baseball pitching machine is keeping this batter swinging. They are used a lot in spring training.

Some teams work out once a day, some twice. There are advocates for both systems. "One workout a day is enough for my players," one manager says. "The Yankees work out only once a day." Another manager disagreed: "But we have to work out twice as hard as the Yankees to do as well." "Nuts," one player said, "I have a mule on my farm that I could train three times a day, and he would never win the Kentucky Derby."

In a few days, inter-squad games are played. Rookies are inserted among the regulars and substituted throughout the game to give everyone a chance. This is a rookie's golden opportunity. If he can make an impression early, he will attract notice and be singled out for further scrutiny. Some call it luck. "Suppose you don't hit in the first few games: you're sunk," complained one rookie.

"Not so," say the coaches. "We can tell by the batter's swing, his form and the pitches he cuts at if he has potential.

"There's a great opportunity today for young ballplayers," says Jim Woods, a husky third baseman who served three years in the minors. "With a possible third major league opening up soon, there will be a greater demand for ballplayers. I think there's a good chance for a hard working ballplayer to reach the majors today, and I, for one, am willing to serve my apprenticeship."

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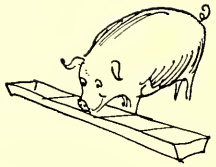
HOW'S YOUR PQ and SQ



By Doris Axtell

If you raise chickens or hogs, you should know all the answers to these questions. For others, a score of four right is fair, five or six right is good. If you happen to get seven right in each of the following quizzes, you should be a good pig or chicken raiser, if not already.

TEST YOUR PQ (Poultry Quotient)

1. Reduced egg quality due to improper washing operations can be overcome by use of a detergent sanitizer, careful rinsing and drying, and by washing with clean water that is always: 1. Colder than the eggs. 2. The same temperature as the eggs. 3. Warmer than the eggs.

2. Overcrowding chicks results in slower growth rate and greater risk of disease. How many square feet of floor space should be allowed for each laying hen? 1. 1½ sq. feet. 2. 3½ sq. feet. 3. 5½ sq. feet.

3. In some communities, prices for white shelled and brown shelled eggs differ. White Plymouth Rock, New Hampshire, Barred Plymonuth Rock, and White Wyandotte are breeds that lay: 1. White shelled eggs. 2. Brown shelled eggs.

4. Plenty of elbow room at the feed troughs result in about five percent more eggs, according to recent trials in New York State. One hundred hens require feeding troughs about: 1. 24 feet long. 2. 12 feet long. 3. 16 feet long.

5. When packing eggs should they be: 1. Large end up. 2. Small end down. 3. Upside down.

6. Sodium Floride is used for treating hens troubled with: 1. Prolapsis. 2. Roup. 3. Body lice.

7. How much does the average egg weight? 1.2 ounces, 2. 1.5 ounces. 3. 2.5 ounces.

TEST YOUR SQ (Swine Quotient)

1. Rate of growth and fattening of hogs can be stimulated by the addition of: 1. Helpful bacteria. 2. Surfactants. 3. Antibiotics.

2. How much water do hogs require for each 100 lbs. live weight? 1. ½ gallon. 2. 1¾ gallons. 3. 3 gallons.

3. Ability of a sow to feed large litters of pigs successfully depends on the number of dinner places she can set for the little ones. How many normal teats should a good sow have? 1. 12. 2. 10. 3. 14.

4. Erysipleas is second only to hog cholera as a killer and crippler of swine. The effective method of combating the disease is to: 1. Vaccinate the individual baby pigs. 2. Vaccinate the gilt before breeding.

5. To eliminate guess work in a sound breeding program, every pig of each litter should have an identification mark. The most satisfactory method of marking is by: 1. Making notches in the ear. 2. Branding. 3. Ear tags.

6. The meat type hog should weigh about 200 lbs. at five months and gain one pound for every: 1. 2 lbs. of feed. 2. 3 lbs. of feed. 3. 4½ lbs. of feed.

7. Now effectively treated with the use of antibiotics, swine used to suffer from enteritis, a disease affecting the: 1. Lungs. 2. Intestines. 3. Liver.

"Oops . . . hi! . . . you hunting mushrooms, too?"

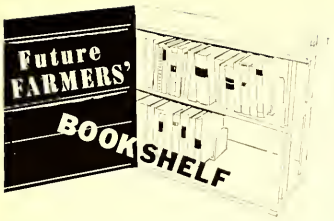
ANSWERS

Poultry Quiz

1. (3) Warmer than the eggs.
2. (2) 3½ sq. feet per bird.
3. (2) Brown shelled eggs.
4. (1) 24 feet long.
5. (1) Large end up.
6. (3) Body lice.
7. (2) 2 ounces.

Swine Quiz

1. (3) Antibiotics.
2. (2) 1¼ gallons.
3. (1) 12.
4. (2) Vaccinate gilt before breeding.
5. (1) Making notches in the ear.
6. (2) Three lbs. of feed.
7. (2) Intestines.



THESE new books are reviewed here as a reader service. If your local bookstore doesn't have these books, write directly to the publisher.

Livestock and Poultry Production (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, price $7.85)—Tells you the new methods and practices you need for today's farming. Combines swine, beef and dairy cattle, sheep, and poultry in its 694 pages—including 400 illustrations and 68 tables.

The authors draw heavily on their 30 years experience in farming and agricultural education work to give you a book you can *understand* and *use*. The chapters on livestock and poultry diseases alone are well worth the price of the book.

Construction and Maintenance for Farm and Home (John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y., price $6.95)—the author is a former ag teacher and taught agricultural engineering at Cornell for several years. He tells how to use all types of hand and power tools to perform the usual repair and construction work around the farm and home.

For this age of "power farming" the author has included all types of power tools and equipment for power shops. There is an introduction to power transmission devices for use in farm construction and maintenance. Steps in achieving all shop skills, including both gas and electric arc welding, are also given. Safety hints and practices are included for each major tool and operation. The large number of drawings and illustrations throughout the book show *how* to use the tools and equipment described.

The Words and the Music (The Interstate Printers and Publishers, Danville, Illinois; price $3.50)—a superbly written book about the life and times of one of America's greatest statesmen and orators, Daniel Webster. It will hold your interest all the way through—so much you won't lay the book down until you finish it. From his birth, to days on the farm, to Congress and finally to his death, you will be fascinated by this great man's deeds and philosophy. Even though his own life was sorrowed many times by death, you will read how he still tried to better the position of the average man. He never said "no" to any cause he deemed just.

SELF-PROPELLED windrower and hay conditioner enables one man to cut, condition, and windrow hay in one pass. Powered by a 37-hp Wisconsin, the unit reduces field travel 75% and saves at least 20 days per haying season.

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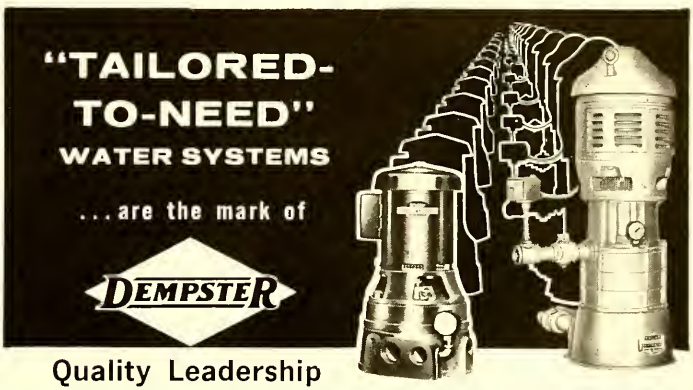

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Here by the Owl

(Continued from Page 10)

The type of young man who should continue FFA membership is the one who received the most benefits during his time in school. To make an abrupt change at this point and at this time of life is not a natural procedure. Surely, the benefits derived from FFA membership in school will carry on into future years regardless of what direction his life may take. Yet continuing in the FFA will be of greater benefit to the young man, his associates of similar age, and the undergraduate members. This has been proven by those who have had worthwhile experiences as a result of continuing membership.

There is also the need for the young man already out of high school to realize that he needs to begin reciprocating, or returning the benefits of some of the many wonderful experiences he had as an FFA member in school. In this respect, he can be of great help to the advisor as well as continuing benefits to himself. Development of a more mature type of responsibility in all phases of life is very important at this time and can result from continued activity in the FFA. The young farmer will most likely be entering into participation in other organizations made up largely of adult members in his field of interest, and in this manner be able to make a good transition from youth to adulthood.

Many other advantages could be listed, among which is the obvious need to continue FFA membership if you are going to become a candidate for a national degree. However, those who attain this degree are the exception rather than the rule and obviously we have been neglecting those of the latter classification.

Perhaps the best answer to the original question, now that we have explored the area of thinking, would be a thoughtful consideration of the benefits to the individual young man. He should find out for himself the values in belonging to the FFA after graduation from high school.

Tree Farming

(Continued from Page 28)

ers. Contact local timber buyers, talk to neighbors who have sold timber, talk with local foresters, or advertise in the newspaper.

Often, it is a good idea to visit the cutting operations of prospective buyers to see if they are doing an acceptable job. Also, check on the reliability of the buyer. A buyer who offers the most money may not always be the best choice. In most cases, it is better to sell to a well established buyer with a good reputation than to an inexperienced operator.

Whatever the amount of timber you are selling, a written agreement should be signed by both you and the buyer. This agreement should specify, in detail, the terms to be followed.

Following a sale, consider replanting or inter-planting seedlings in areas within your woodland. This would also be a good time to plant seedlings on other idle acres. You pay taxes on the entire area, so why not let your woods carry their fair share of the load? Think about future crops and carry out the necessary steps to insure good tree farming—you will see that your woods will do much more than pay their way.

If you would like more information on tree farming, write American Forest Products Industries, Inc., 1816 N Street, N. W., Washington 6, D. C. They will send you all the facts about the advantages of the Tree Farm Program.

Livestock Judging Results

HERE are the placings in the livestock judging contest which appeared in the February-March issue. Hampshire ewes —BDAC; Brahman heifers—ADCB; Jersey cows—BDAC; Landrace gilts—ADBC; Angus bulls—ADCB.

If you didn't win a prize this time, you will get another chance to try again soon. A new judging contest is being planned for a future issue. Be sure to watch for it!

IMPORTANT! If you would like *written reasons* on the placings of the judging contest, send us a self-addressed stamped envelope. The reasons will help you do a better job of placing animals the next time you judge livestock. Send for yours today!

From over 5,200 entries, here are the winners: Ralph Wilson, Martinsville, Ill.; Jerry Avinger, Elloree, S.C.; Duane Schade, Litchfield, Nebr.; Gary Kruckeberg, Claremont, Minn.; Jimmy Camren, Agra, Okla.; Gary Zerkle, Urbana, Ohio; Kenneth Dixon, Lisbon, Ohio; Keith McGinnis, Kenton, Ohio; Wendell Broyles, Meeker, Okla.; Carl Hains, Dresden, Ohio; Dave Keeler, Mechanicsburg, Ohio; Leland Harbers, Ashton, Iowa; Ernest Dack, Montevideo, Minn.; Henry Urban, Paige, Tex.; David Huneycutt, Sadler, Tex.; Conrad Hoff, Valley City, N.D.; Carmen Lamanna, Little Falls, N.Y.; Roger Cotner, Independence, Kans.; Kenneth Behrens, Eskridge, Kans.; Harold Pedigo, Westmoreland, Tenn.; Jim Laytham, Pall Mall, Tenn.; Tom Holland, Inwood, Iowa; George Sago, Grand River, Iowa; Roland Hoeger, St. Olaf, Iowa; Dave Inskeep, Sheridan, Ind.; Chuck Doyle, Henderson, Minn.; Floyd Fowler, Warsaw, Ohio; Bobby Webb, Muscatine, Iowa; Douglas Johnson, Rugby, N.D.; Jinks Wynn, Alton, Mo.; Howard Hodgson, Lockwood, Mo.; David H. Sacra, Finchville, Ky.; John Crooke, Worthington, Ind.; Don Schieber, Kildare, Okla.; Howard Guy, Jr., Bradford, Tenn.; Tom Parr, Hudson, Ind.; Bill Sowell, Union City, Tenn.; William Bramlett, Pontotoc, Miss.; Robert Chapman, Saugus, Calif.

The Aberdeen-Angus

Another in a series on the origin of our livestock breeds.

THE ORIGIN of the modern Aberdeen-Angus breed can be traced to the French Revolution in 1795. With Europe at war and the price of wheat soaring, the southern provinces of Scotland gave up cattle breeding and feeding for more profitable grain farming. Farmers in northern Scotland found it necessary to feed out their own livestock to fulfill the market demand.

In Aberdeenshire, a local strain of cattle known as humlies or hummel (hornless) was prominent. The adjacent county of Angusshire produced a strain known as doddies. The offspring, resulting from selective breeding of these two naturally polled strains, produced the forerunners of the Aberdeen-Angus breed as we know it today.

Prominent farmers in lower Aberdeenshire had developed pure polled herds by 1820, and in 1862 the first herd book was published. Hugh Watson of Keillor, William McCombie of Tillyfour, and Sir George MacPherson Grant of Ballindalloch, stand out as the most influential breeders during the early days. Watson is regarded by historians as the early improver of the Angus breed; McCombie, the master builder; and Grant—who owned the oldest herd in Scotland—is noted as the builder of families.

Hugh Watson bred and developed the first cow to be registered in the Scottish Herd Book—Old Grannie 125 (1). She was calved in 1824, lived to be 35 years old, and produced a total of 29 calves, 11 of which were registered in the herd book.

Angus first came to America in 1873 with the importation of four bulls by George Grant of Kansas. These bulls were crossed with native Texas Longhorns and the improved offspring immediately became popular with cattle feeders in the Midwest and Southwest.

The first purebred herd in America was established by James Anderson and George Findlay of Lake Forest, Illinois, in 1878. W. A. McHenry, Denison, Iowa, is regarded as the master breeder of Angus cattle in America. McHenry's herd, established in 1887, proved for 30 years his constructive breeding program with constant show winnings.

Many livestock men consider the McHenry bull, *Earl Marshall*, to be the greatest sire of Aberdeen-Angus in America.

Angus cattle are noted for uniformity of color and quality, and for their ability to produce a maximum of prime beef with a minimum amount of waste. These, and many other qualities, have placed Aberdeen-Angus in a prominent position among the beef breeds of today.

For further information about Angus, write the Director of Public Relations, American Angus Association, 3201 Frederick Boulevard, St. Joseph, Missouri.

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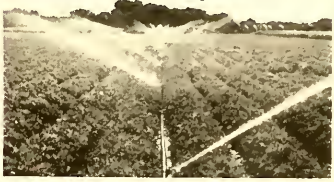

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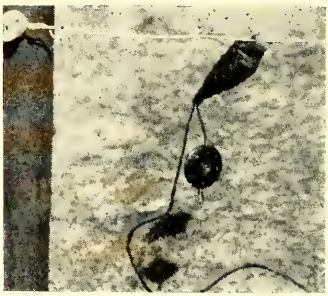
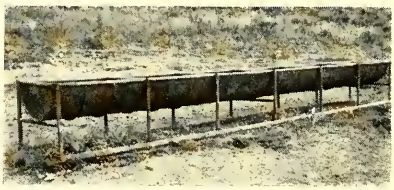
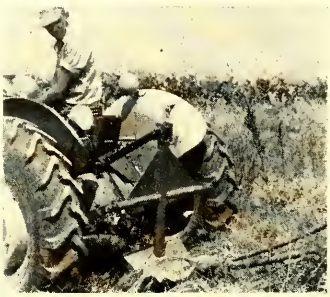


Electric fence tester can be used to short current during repairs. Insulated battery clamp grounds the wire.

Front hitch on jeep allows Jerrald Truax, Regional Star Farmer, to trail jeep behind combine, etc. to field.



Portable cattle feeder can be used for silage, grain, or hay bales. Drums are welded together. Note the pipes used for runners.



Cutter will cut saplings up to 2½ in. diameter. Teethed digger is a 17½ in. disc mounted on the post at an angle.

All photos except Jeep
By A. M. Wettach

Milk can rack is built of one-inch pipe. This makes a sturdy, sanitary method of supporting the milk cans.

Old Rustler

(Continued from Page 55)

and she mentioned it at supper. If we could only solve the reason we hadn't heard the engine start at night.

We kept on suspecting Rustler's suspect, and one day just as my dad seemed tired of the talk, a thought struck him. He had the solution to the question of the motor all the time, but he had not thought about it. One evening as it grew late and windy, he was in the field getting the last of that cutting of hay, and he noticed the dragline operating. The company pickup was there, so it didn't seem unusual. The regular operator had gone home, but we had no way of knowing they had no business running it, unless he was present. We promptly relayed this news to the sheriff.

Still nothing happened. The damage continued, and the cloud hung heavy over our neighborhood. They drove the clumsy machine into our yard, and then a neighbor's, and still the damage went on. At last the road was completed, and they moved away, but the trouble went with it.

We gave up ever hearing the outcome, until one day, everyone joyfully was talking about the capture of the culprit. Wonder of wonders! None other than Old Rustler's suspect! The boy who cleaned the machine had hoped to take the place of the operator who quit, and when he was denied the opportunity he got his revenge.

Now tell me! How could that sheep know! I feel sure Rustler must have been turned in on a sympathetic wave length. That enabled him to know when I was disturbed. This was evidently projected over a mile when the deputies called at the school. We all agree that animals do not have the power of thought, so how did he reason out the guilty party?

Was it because it concerned me that he challenged the man? Was it possible he knew something was wrong by that "smell of fear" that animals are supposed to have? If it was a power of the mind in an animal supposed to be so dumb, what possibilities are there in the mind of man? Yes, sir! Old Rustler started me thinking. I can't explain it. All I know for sure is that it's true. Every word of it!

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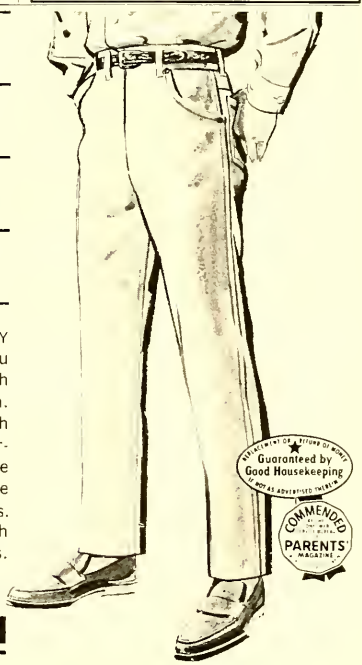

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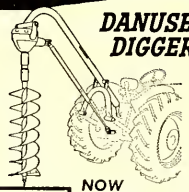

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84—Methods of Applying Fertilizer—A timely booklet that gives current recommendations for fertilizer applications and the most effective methods of applying them. Covers from principles involved in fertilizer use through fertilizer application equipment. (National Plant Food Institute)

85—New Ideas for Handling Barnyard Manure—Detailed reports on the value of barnyard manure have been translated into dollars and cents figures. Manure has a big money value and if you don't take advantage of it, you are losing money. Let this booklet tell you "how to do it." (New Idea Farm Equipment Co.)

86—Pigeon Racing—Are you a racing fan? This booklet gives you all the information about this fast growing sport. Chapters start at raising pigeons and go to entering them in races. Also tells how you may form a pigeon racing club. (American Racing Pigeon Union, Inc.)

87—Plans for Building A Rigid Frame Building—Working plans for building a barn, chicken house, or what have you. Has step-by-step construction plans, and a complete list of materials needed. (Douglas Fir Plywood Association)

88—Hog Manual—The pork producer has to raise what the consumer wants. To be a successful hog raiser, meat type hogs are essential. This complete manual tells how to select meat-type breeding stock plus giving feeder methods, management, and sanitation practices. (McMillen Feed Division)

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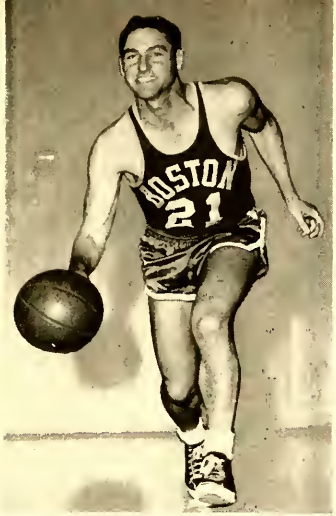

Bill Sharman of the Boston Celtics.

Sportrait

By Stan Allen

BILL SHARMAN, outstanding guard of the Boston Celtics, is one of the best all-around players the round ball game has ever known. This is quite an accomplishment for a fellow who did not want to play pro basketball.

Bill, who hails from Porterville, California, was a versatile athlete in his early years. A five-letter man for Porterville High School, he won letters in football, baseball, basketball, tennis, and also track and field. In football, he was a triple threat. Bill interrupted his sports life after high school graduation to enlist in the Navy and served in the Pacific area during World War II.

Returning from the Navy in 1946, he enrolled at the University of Southern California. Bill concentrated on baseball and basketball and excelled in both. He closed out his collegiate basketball career by setting a new all-time Pacific Coast Conference season scoring record with 238 points. He beat Stanford's George Yardley by just one point.

During this time, his baseball talent had attracted the attention of baseball scouts and the old Brooklyn Dodgers gave him a reported $12,000 bonus to sign a contract. Bill wanted to be a big league ball player and he had all the tools needed—good size, speed, and a fair hitting eye. In his first season with a Dodger farm team, he had a respectful .288 batting average.

Sharman kept his hand in basketball too and was drafted by the Washington Capitals the same year he signed with the Dodgers. After finishing the '50 baseball season, Bill reported to the Caps and appeared in 31 games before the team broke up. He recorded 141 field goals out of 361 attempts for a .391 average and sank 96 out of 108 free throws. Then he played baseball for Fort Worth in 1951 and was called up to the Dodgers near the end of the season but did not get a chance to make the team. The Dodgers had a good outfield in those days.

It was then that Bill accepted a Boston Celtics contract. He has probably never regretted that move as he has enjoyed a fine career in pro basketball. At six-f ot, one-inch tall and weighing 190 pounds, he is not a big man compared to today's players. He has exceptional driving and faking ability, a deadly short jump shot, and one of the best one handed shots in the game. Sharman is a great team player and a fierce competitor. He and Bob Cousy have teamed up to make the greatest back court combination the game has known.

In 1951-52, his first season with Boston, he sank 244 shots for a .389 average and made good on 183 foul shots. Bill began to find his game in 1952 and made 403 out of 925 field goals for a .436 shooting average, and his average has been in the .400 class ever since. Even though he holds no shooting marks on field goals, he is an accurate shooter especially inside the 25-foot range. He once held an all-time league mark of 11 consecutive goals, one under George Yardley's new mark. He recorded one of the longest shots in the game's history during the 1957 All-Star game. He grabbed a rebound and let go a pass that traveled the length of the court and through the basket, a 70-foot shot without touching rim or backboard. In his 10-year career, he has attempted 10,266 field goals and has sunk 4,378 for a lifetime .427 average which tops any other 10-year veteran.

His ability at the free throw line is amazing. His .850 free throw shooting average, 341 out of 401, in 1953 was good for league honors. He held these honors through 1957, finishing second in '58, and came back to finish on top in '59 with an incredible .932 average. He only missed 25 shots out of 367 tries. He holds the all-time record for consecutive foul shots made with 55, also 79 out of 80. In the '59 play-offs he hit 57 in 59 tries, 56 of them in a row. His mark in play-off competition under pressure is a fantastic .914. His career free throw shooting average is .881, sinking 2,933 out of 3,331 attempts, which is tops in the N.B.A. He has already tied his 55 mark this year.

Bill Sharman has been voted to the All-National Basketball Association team four times and to the second team three times in his ten years. He played in the last eight East-West All-Star games and won the Most Valuable Player Award in 1955. You will have to admit this is quite a basketball career for a baseball player.

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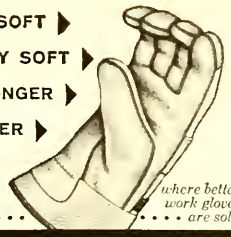

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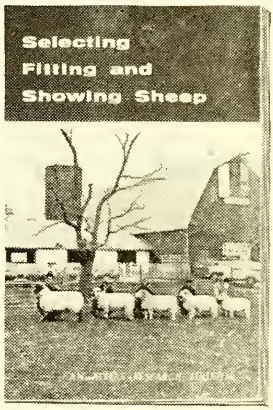

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"You had them for lunch. . . . How was I to know they were seed potatoes?"

Visitor: *"I hear your cows are producing more milk per ton of feed than any other cows in the country. How do you do it?"*

Farmer: *"I keep them on a very special kind of pasture."*

Visitor: *"What kind?"*

Farmer: *"Milk weeds."*

Marvin Stalock
Wells, Minnesota

Mac: *"How close did that bolt of lightning come to you?"*

Frank: *"I don't know, but I do know my pipe wasn't lit before."*

David Davidson
Reform, Alabama

Census Taker: *"How old are you, madam?"*

Mrs. Johnston: *"Did the Hills next door tell you their age?"*

Census Taker: *"No, they didn't."*

Mrs. Johnston: *"Well, I'm as old as they are."*

Census Taker wrote down: *"Mrs. Johnston, as old as the Hills."*

Earl Lusk
Central, South Carolina

Teacher: *"Ted, what is your favorite state?"*

Ted: *"Mississippi."*

Teacher: *"Spell it."*

Ted: *"I think I like Ohio better."*

Vernon Sheard
Michigan, North Dakota

A group of city boys were walking along in the country. One of them saw a pile of empty milk bottles and yelled to the others, *"Hey, fellows, come quick, I've found a cow's nest."*

Wayne Campbell
Stuarts Draft, Virginia

Joe: *"I almost married a hula dancer."*

George: *"What happened?"*

Joe: *"She wiggled out of it."*

Rosadean Monday
Tompkinsville, Kentucky

Wrangler: *"What kind of saddle do you want—one with a horn or one without?"*

Dude: *"One without, I guess. There doesn't seem to be much traffic around here."*

Ken Hewitt
Bad Axe, Michigan

Judge: *"What is your name, your occupation, and what are you charged with?"*

Prisoner: *"My name is Sparks; I am an electrician, and I am charged with assault and battery."*

Judge to Jailer: *"Put this man in a dry cell."*

Billy K. Brown
Greenwood, Texas

A mountaineer was sitting on a log with a worried look on his face. Upon seeing him, another mountaineer asked, *"What's wrong?"*

The first replied, *"I lost my corn crop this year."*

The second asked, *"How did you do that? The bad weather? Fire? Insects?"*

"Neither," said the first. *"The dadburned revenuers."*

Vernie Padgett
Jacksonville, North Carolina

"If you can imitate birds so well let's see you swallow this."

The startled policeman looked up to see a small sport car leap into the air, come down, travel smoothly for a minute, then jump into the air again. When the car finally bounced to a stop, the policeman called, *"What's the matter with your car?"*

"Oh, the car is fine," the driver replied, *"but I've got an awful case of hiccups!"*

Darrell Patterson
Powder Springs, Georgia

One firefly to another: *"Yesterday a scientist was looking at me with a microscope. After some time I got fed up. So I turned on my light and blinded him.*

Lonnie Goering
Moundridge, Kansas

Charlie, the Green Hand

"I want to cut in on Charlie but I'm not sure that's only a costume."

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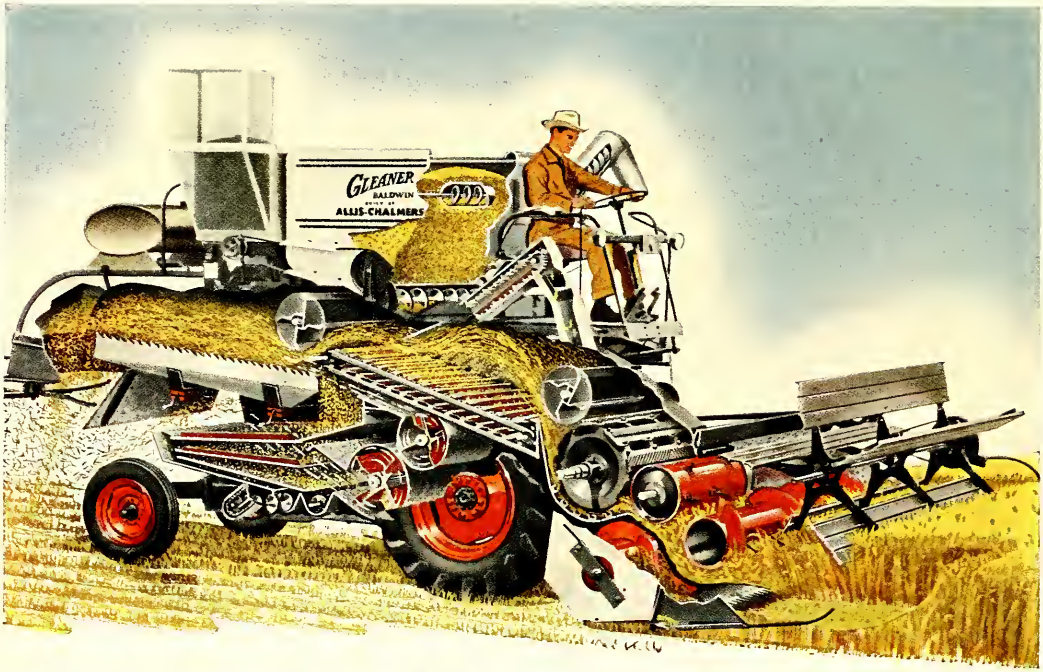

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